Read this first

Notice

© 2004 Sony Corporation. All rights reserved.

This manual and the software described herein, in whole or in part, may not be reproduced, translated, or reduced to any machine-readable form without prior written approval.

Sony Corporation provides no warranty with regard to this manual, the software, or other information contained herein and hereby expressly disclaims any implied warranties or merchantability or fitness for any particular purpose with regard to this manual, the software or such other information. In no event shall Sony Corporation be liable for any incidental, consequential, or special damages, whether based on tort, contract, or otherwise, arising out of or in connection with this manual, the software, or other information contained herein or the use thereof.

In the manual, the ™ or ® marks are not specified.

Sony Corporation reserves the right to make any modification to this manual or the information contained herein at any time without notice. The software described herein is governed by the terms of a separate user licence agreement.

Please note that the illustrations in this manual may not necessarily apply to your model. Please see the Specifications sheet for the specific configuration of your VAIO computer.

ENERGY STAR

As an ENERGY STAR Partner, Sony has determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The International ENERGY STAR Office Equipment Program is an international program that promotes energy saving through the use of computers and their office equipment. The program backs the development and dissemination of products with functions that effectively reduce energy consumption. It is an open system in which business proprietors can participate voluntarily. The targeted products are office equipment such as computers, displays, printers, facsimiles and copiers. Their standards and logos are uniform among participating nations.

ENERGY STAR is a U.S. registered mark.

Owner's record

The serial number and model number are located on the bottom of your Sony computer. Record the numbers and refer to them if you need to contact VAIO customer support.

Safety Information

General

- Opening the unit, for whatever reason, could lead to damages that are not covered by the guarantee.
- To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.
- Audio and picture distortion may occur if this equipment is positioned in close proximity to any equipment emitting electromagnetic radiation.
- To prevent fire or shock hazard, do not expose your Sony Personal Computer to rain or moisture.
- When transporting the unit, prevent foreign objects from causing a malfunction by using the battery pack, the connector covers and the supplied slot protectors if there is any.
- Unplug all connected cables including the telephone cord and the power cord when you hear thunder.
- Only connect 10BASE-T, 100BASE-TX, and 1000BASE-T cables to the computer network jack. Do not connect any other type of network cable or any telephone line.
  The computer network jack cannot be connected to a telephone line, a coin-operated telephone, a digital private branch exchange (PBX), or multiple phone lines.
  These connections may result in an electric current overload and could cause a malfunction, excessive heat, or fire in the connector.
  For the settings and devices needed to connect to the network, please ask your network administrator.
- The socket-outlet shall be installed near the equipment and shall be easily accessible.
- Do not block air intake vents and air exhaust vents. Also, do not place your computer on a bed, sofa, or rug.
- This product has been tested and found compliant with the limits set out in the EMC regulation for using connection cables shorter than 3 meters.
- To change the backup battery, please contact your nearest Sony Service Centre.
- Before you connect peripherals, turn off the computer and all peripherals.

- Connect the power cord only after connecting all cables.
- Turn on the computer only after turning off all peripherals.
- Do not move your computer while the system is in **Standby** mode.
- The magnetic properties of some objects can have serious consequences for your hard disk drive. They can erase the data on the hard disk drive and cause the computer to malfunction. Do not place your computer near or on any objects which emit magnetic fields, mainly:
  - TV sets
  - Speakers
  - Magnets and magnetic bracelets

Regulatory information

Danger - Visible and invisible laser radiation when open. Avoid direct exposure to beam.

The portable optical drive that came with your computer is classified as a CLASS 1 LASER PRODUCT and complies with the Laser Products Safety Standard EN 60825-1. Repair and maintenance only by authorized Sony technicians. Improper use and repairs can create a safety hazard.

In case your model is equipped with Wireless LAN, please read the following:

- If radio interference with other devices occurs while using your computer, do not use the Wireless LAN functionality. Use of the Wireless LAN functionality may cause a malfunction of the devices, resulting in an accident.
- Do not use the Wireless LAN functionality in any medical institutions, including hospitals, or while you are close to any electric medical equipment. Radio waves may cause a malfunction of such equipment, resulting in a serious accident.
- Do not use the Wireless LAN functionality in an aircraft. Radio waves may cause a malfunction of the aircraft's equipment, resulting in a serious accident.
- Do not use the Wireless LAN functionality in a crowded place, such as in a crowded train car. Radio waves may cause a malfunction of pacemakers implanted in other people's bodies.
  - If you urgently need to disable the Wireless LAN functionality, turn off the Wireless LAN switch.

Wi Fi CERTIFIED

Disposing of lithium ion batteries

For additional information, refer to the **Safety Information** booklet.

- Do not handle damaged or leaking lithium ion batteries. Dispose of promptly and properly at end-of-life.
- Danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.
- The battery pack used in this device may present a fire or chemical burn hazard if mistreated. Do not disassemble, heat above 140°F (60°C) or incinerate.
- Dispose of used batteries promptly and properly.
- Keep away from children.
- In some areas the disposal of lithium ion batteries in household or business waste may be prohibited.
  - Use the public collection system.

Disposing of internal memory backup battery

- Your computer is equipped with an internal memory backup battery that should not have to be replaced during the lifetime of the product. For changing this battery, please contact VAIO customer support.
- Danger of explosion if the battery is incorrectly replaced.
- Dispose of properly at end-of-life.
- In some areas the disposal of lithium ion and other non-hazardous batteries in household or business waste may be prohibited.
  - Please use the public collection system.

Welcome

Congratulations on purchasing a Sony VAIO computer. Sony has combined leading-edge technology in audio, video, computing and communications to provide you with state-of-the-art personal computing.

✍ View the Electronic Flyer, which provides updates and supplemental information about your computer.

✍ Go to the Sony Computing Support web site to view the specifications, which list your computer's hardware specifications and preinstalled software information.

✍ For Sony software information, click **Start** and select **Welcome to VAIO life**.

Here are the main features you can enjoy:

- **Exceptional performance**.
- **Portability** – The rechargeable battery pack provides hours of use without AC power.
- **Sony audio and video quality** – A high-resolution LCD screen enables you to take advantage of today's advanced multimedia applications, games, and entertainment software.
- **Multimedia features** – Enjoy audio and video CDs/DVDs.
- **Interconnectivity** – Your computer has Ethernet, Hi-Speed USB (USB2.0) (High-speed/Full-speed/Low-speed supported) and i.LINK functionalities. i.LINK is a bidirectional digital interface for exchanging data. With the Memory Stick you can easily exchange and share digital data with compatible products.

- **Wireless technology** – Thanks to the Wireless LAN (IEEE 802.11b/g) technology, you can communicate freely, without cables or wires.
- **Windows** – Your system includes the Microsoft Windows XP Professional operating system with Service Pack 2.
- **Communications** – Access popular online services, send and receive e-mails, browse the Internet.
- **Excellent customer support** – If you are experiencing any problems with your computer, please check the VAIO online website for a possible solution:

  http://www.sony.com/pcsupport

  Before contacting VAIO customer support, please try to solve any problems by reading this guide, the printed **Welcome Mat**, or the manuals and help files for the peripherals or software.

Documentation pack

Your Documentation Pack contains printed information and a user guide for information on setting up and using your computer.

Printed documentation

- A **Welcome Mat**, containing an overview of all connectors, set-up information, and selected features of your computer.
- A **Safety Information** booklet.

Non-printed documentation

Click **Start**, point to **Help and Support**, and then click **User Guide** or **Hard Disk Recovery** to view your desired on-line documentation.

Using your VAIO computer

Once you have read and followed the information in the printed **Welcome Mat**, you can start using your computer safely and confidently.

Read on to get the most out of using your VAIO computer.

- Connecting a power source
- Setting the password
- Setting up your computer with Sony Notebook Setup
- Shutting down your computer safely
- Using the keyboard
- Using the touch panel
- Using the pointing device
- Using special buttons
- Using the port replicator
- Using a disc drive
- Using the stick remote commander and the ear set
- Using the display/LAN adapter
- Using Memory Stick media
- Using Compact Flash Cards
- Using Wireless LAN (WLAN)
- Using power saving modes
- Managing power with VAIO Power Management

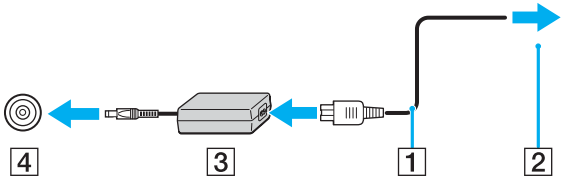
Connecting a power source

You can use either an AC adapter or a rechargeable battery pack as a power source.

Using the AC adapter

To use the AC adapter, proceed as follows:

1. Plug one end of the power cord (1) into the AC adapter.
2. Plug the other end of the power cord into an AC outlet (2).
3. Plug the cable attached to the AC adapter (3) into the DC In connector (4) on the computer.



! The shape of the plug varies depending on the AC adapter.

Use your computer only with the supplied AC adapter.

To disconnect your computer completely from mains voltage, unplug the AC adapter.

Make sure that the socket outlet is easily accessible.

If you do not use the AC adapter for a long period of time, put your computer into **Hibernate** mode. This power saving mode saves you the time of shutting down in the normal way.

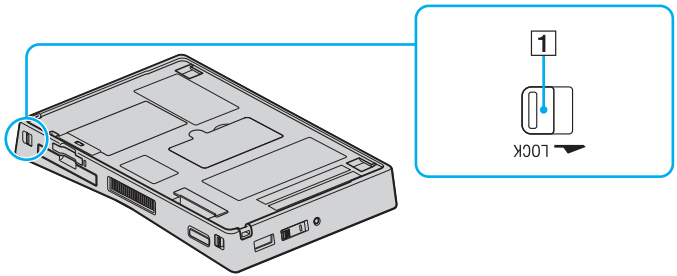
Using the battery pack

The battery pack supplied with your computer is not fully charged at the time of purchase.

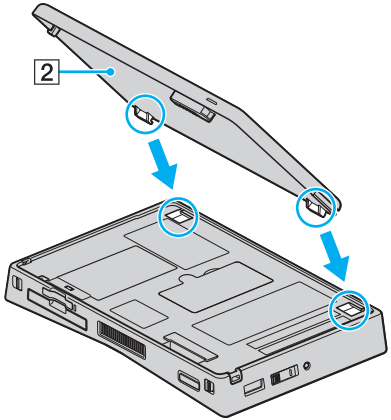
Attaching the battery pack

To attach the battery pack, proceed as follows:

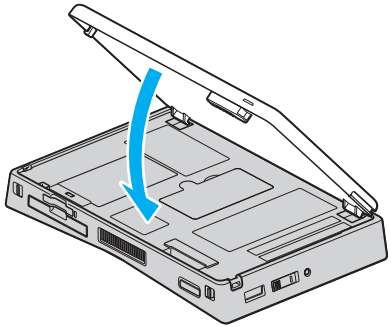
1 Slide the LOCK lever (1) on the top of your computer in the reverse direction of the arrow.



2 Insert the tabs on the battery (2) diagonally into the notches on the computer.



3 Lower the other side of the battery towards the computer and push it in until it clicks into place.



4 Slide the LOCK lever in the direction of the arrow to secure the battery on the computer.

When the computer is directly connected to AC power and has a battery pack attached, it uses power from the AC outlet.

For your safety, it is highly recommended that you use genuine Sony rechargeable battery packs and AC adapters that meet the quality assurance standard, supplied by Sony for your VAIO personal computer. Some VAIO personal computers may only function with a genuine Sony battery.

Charging the battery pack

To charge the battery pack, proceed as follows:

1 Connect the AC adapter to the computer.

2 Attach the battery pack.
The computer automatically charges the battery (the battery indicator light flashes in a double blink pattern as the battery charges).

Battery indicator light status	*Meaning*
On	The computer is using battery power.
Single blink	The battery is running out of power.
Double blink	The battery is charging.
Off	The computer is using AC power.

When the battery is running out of power, both the battery and power indicators blink.

Keep the battery pack attached to the computer while it is directly connected to AC power. The battery pack continues to charge while you are using the computer.

If the battery level falls below 10%, you should either attach the AC adapter to recharge the battery or shut down your computer and attach a fully charged battery.

The battery pack supplied with your computer is a lithium ion battery and can be recharged any time. Charging a partially discharged battery does not affect battery life.

The battery indicator light is on while you use the battery pack as a power source. When the battery life is nearly depleted, both the battery and power indicators start flashing.

For some software applications and some peripheral devices, your computer may not enter **Hibernate** mode even when battery life is low. To avoid loss of data when using battery power, you should save your data frequently and manually activate a power management mode, such as **Standby** or **Hibernate**. If the battery wears out when your computer enters **Standby** mode, you will lose any unsaved data. Going back to the previous work state is impossible. To avoid loss of data, you should save your data frequently.

When the computer is directly connected to AC power and has a battery pack attached, it uses power from the AC outlet.

Removing the battery pack

To remove the battery pack, proceed as follows:

1. Turn off the computer.
2. Slide the LOCK lever on the top of your computer in the reverse direction of the arrow.
3. Slide and hold the release lever outwards.
4. Raise the battery diagonally to remove from the computer.

✍ You may lose data if you remove the battery pack while the computer is on and not connected to the AC adapter or if you remove the battery while the computer is in **Standby** mode.

Troubleshooting power supply

My computer does not start or the power switch is disabled (The power indicator flashes quickly)

- The **HOLD** switch may be turned on. Slide the switch in the reverse direction of the arrow and bring your system back into normal mode.
- The battery that is attached to your computer is not compatible. Remove the battery.

A message appears and my computer is in Hibernate mode

The battery that is attached to your computer is not compatible. Wait till your computer shuts down and then remove the battery.

Setting the password

Use one of the BIOS functions to set the password.

Once you have set the password, you will have to enter the password after the VAIO logo appears. In this way, you can protect your computer from unauthorized access.

! You cannot start your computer without entering the password. Make sure not to forget the password.

! If you forget the password and need assistance to cancel it, a cancellation fee will be charged.

✍ Although you can use **Software Keyboard** or **NextText**, depending on your country or region, for character input, you may want to connect the supplied folding keyboard before setting the password.

Adding the password

To add the password, proceed as follows:

1. Turn on your computer.
2. Press **F2** when the **VAIO logo** appears.
   The BIOS setup screen appears.

   If not, press **F2** several times.
3. Use ← or → to select **Security** to display another screen, select **Set Machine Password**, and then press **Enter**.
4. On the password entry screen, enter the password **twice** and press **Enter**.
   The password should be **up to 7 alphanumeric characters** long.

The following information helps you configure your computer to prompt for a password entry when you turn on your computer or display the BIOS setup screen.

5 Select **Password When Power ON** under **Security**.
Press the space bar to change the setting from **Disabled** to **Enabled**.

6 Use ← or → to select **Exit** and then **Exit (Save Changes)**; and press **Enter**.
On the **Setup Confirmation** screen, confirm that **Yes** is selected and then press **Enter**.

Changing/removing the password

To change or remove the password, proceed as follows:

1 Turn on your computer.

2 Press **F2** when the **VAIO logo** appears.
The BIOS setup screen appears. If not, press **F2** several times.

3 Enter the current password for **Enter Password**:

4 Use ← or → to select **Security** to display another screen, select **Set Machine Password**, and then press **Enter**.

5 On the password entry screen, enter the **current password once** and then a **new password twice**; and press **Enter**.
To remove the password, leave **Enter New Password** and **Confirm New Password** blank and press **Enter**.

6 Use ← or → to select **Exit** and then **Exit (Save Changes)**; and press **Enter**.
On the **Setup Confirmation** screen, confirm that **Yes** is selected and then press **Enter**.

Setting up your computer with Sony Notebook Setup

The **Sony Notebook Setup** utility allows you to consult system information and specify preferences for system behaviour.

To use Sony Notebook Setup, proceed as follows:

1. Click the **Start** button on the **Windows** taskbar.
2. In **All Programs**, select **Sony Notebook Setup** and then click **Sony Notebook Setup**.
   The **Sony Notebook Setup** window appears.

Tab	*Description*
About This Computer	Displays system information, including memory capacity, serial number, and BIOS version.
Initial Setting	You can specify the hard disk drive as well as other drives inserted into your computer to select the drive and device order you wish to use for loading the operating system. You can also change the volume of the sounds played while the operating system is loading.
Device	You can perform a variety of tasks concerning devices, including hardware resources and the pointing device.
Bass boost	You can turn on/off the **Bass Boost** function (only with ear set). You can also check the effect of the **Bass Boost** function by selecting a sound file sample and playing it.
Screen Resolution	You can specify the screen resolution of the connected external display.
Buttons (Normal)	You can change the actions linked to the buttons on your computer in Normal mode.
Buttons (Rotational)	You can change the actions linked to the buttons on your computer in Rotational mode.
Buttons (External)	You can change the action linked to the **S1** button and the LCD / (External Display) button on the port replicator connected to your computer.
VAIO Design Setting	You can specify window designs at individual screen resolutions. You can also specify launch of **Software Keyboard** or **NextText**[1] at time of logging on for character input and a behaviour when the screen resolution is greater than the LCD resolution.

1 Depending on the model of your computer. Available on selected models only.

3 Select the tab for the item you want to change.

4 Once finished, click **OK**.
The item has been changed.

For more information about each option, click **Help** on the **Sony Notebook Setup** screen to display the help file.

Some of the tabs will not be visible If you open **Sony Notebook Setup** as a limited user.

Shutting down your computer safely

It is important that you shut down your computer properly so you do not lose unsaved data.

To shut down your computer, proceed as follows:

1. Turn off any peripherals connected to your computer.
2. Click the **Start** button.
3. Click **Turn Off Computer**.
   The **Turn off computer** window appears.
4. Click **Turn Off**.
5. Respond to any prompts warning you to save documents or to consider other users and wait for your computer to turn off automatically.
   The power indicator turns off.

✍
See the printed **Welcome Mat** if you have problems shutting down your computer.

Using the keyboard

The supplied folding keyboard is very similar to a desktop computer's keyboard, but has additional keys that perform specific tasks.

For more information on the standard keys, please go to the **Windows Help and Support Center**.

Connecting/disconnecting the folding keyboard

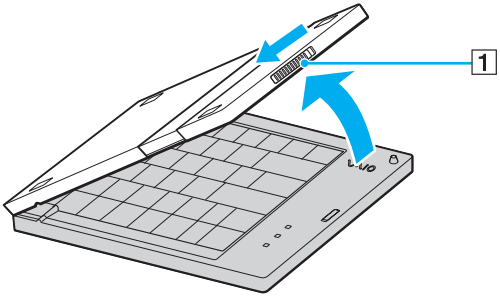
The folding keyboard comes with your computer for typing convenience. You can connect the folding keyboard without turning off your computer.

!
Keep your finger away from the joint part of the folding keyboard when opening and folding the keyboard to prevent injury.

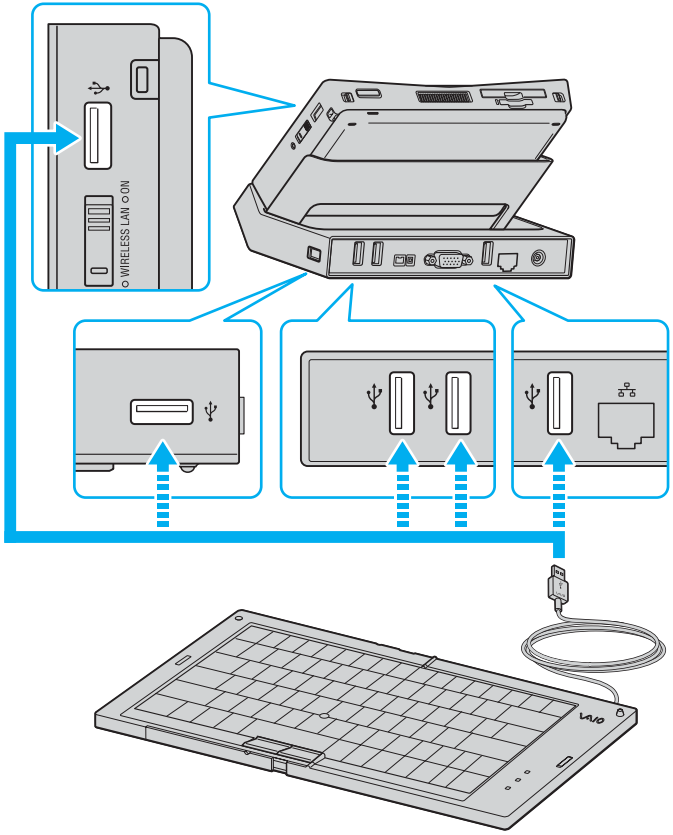
The cap on the keyboard's multi-pointer will wear out over time. When it wears out, replace it with one of the supplied spare caps.

To connect the folding keyboard, proceed as follows:

1 Slide the lock lever (1) on the folding keyboard to the UNLOCK position and open the keyboard.


1

2 Connect the keyboard to one of the USB connectors on your computer or the port replicator.



!
To prevent damage to your computer or the folding keyboard, while the keyboard is connected, do not:

!
- carry around your computer.

!
- put your computer into a bag or the protective pouch.

To disconnect the folding keyboard, proceed as follows:

1 Unplug the keyboard from the USB connector.

2 Fold the keyboard and slide the lock lever to the LOCK position.

*Combinations and functions with the <**Fn**> key*

Combinations/Feature	*Functions*
<Fn> + **(F2)**: speaker switch	Toggles on and off the built-in speaker and the ear set.
<Fn> + **(F3/F4)**: speaker volume	Adjusts the built-in speaker volume and the ear set. To increase volume, press **<Fn>+<F4>** and then ↑ or →, or keep pressing **<Fn>+<F4>**. To decrease volume, press **<Fn>+<F3>** and then ↓ or ←, or keep pressing **<Fn>+<F3>**.

✍
Some functions are not available until Windows is launched.

Indicators

Indicator	*Functions*
Power	**Power on**: lights green. **Standby mode**: flashes umber.
Battery	Indicates the status of the battery.
Wireless LAN	Turns on when the Wireless LAN is activated. Turns off when the Wireless LAN is not activated.
Memory Stick Pro	Turns on when the **Memory Stick** is in use. Turns off when the **Memory Stick** is no longer in use.

Light	*On*	*Off*
Hard disk	Data is read from or written to the hard disk drive.	The hard disk drive is not being accessed.
Num Lock	Turns on when the number keys in the numeric keypad area are active.	Turns off when the alphanumeric character keys in the keypad area are active.
Caps Lock	Turns on when the letters appear in uppercase as you type. The <**Shift**> key lowers the case of typed characters when **Caps Lock** is on.	Turns off when the letters appear in lowercase as you type (unless you hold down the <**Shift**> key).
Scroll Lock	Turns on when the screen scrolls differently (Not all applications support this function).	Turns off when the information moves across the display normally.

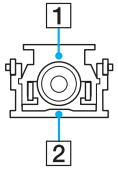
Troubleshooting the keyboard

A key top has fallen off

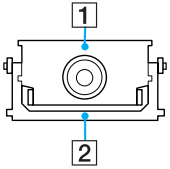
To replace a key top, proceed as follows:

1 Check if the inner lever (1) and the outer lever (2) are disengaged.
If the levers are correctly in place, proceed to step 5.

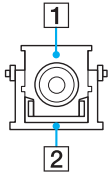
- Keys at the top row of the keyboard



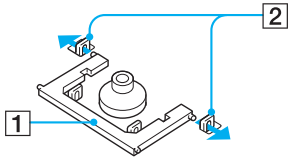
- **Backspace**, **Enter**, left **Shift**, and **Caps Lock** keys



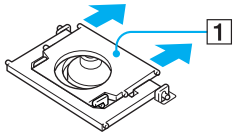
❑ Any other keys



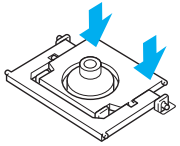
2 Attach the outer lever (1) to the hooks (2) on the key unit.



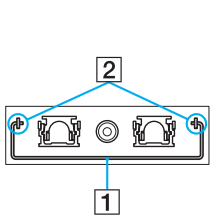
3 Insert the inner lever (1) underneath the outer lever and pull the inner lever in the direction of the arrow.

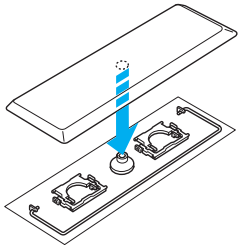


4 Push in the inner lever from above until it clicks into place. When you have replaced the key top, push it several times to make sure that the key top is secured.



5 If the space bar key falls off, remove the wire (1) from the key top, attach it to the hooks (2) on the key unit, align the centre of the key top, and then press it from above until it clicks.
If any key top other than the space bar key falls off, place it back into position and push it in from above until it clicks.





! Do not take off the key top intentionally, as it may cause a malfunction.

! Do not push the key top excessively when you replace it, as it may cause a malfunction.
Handle the key tops with care.

Troubleshooting sound

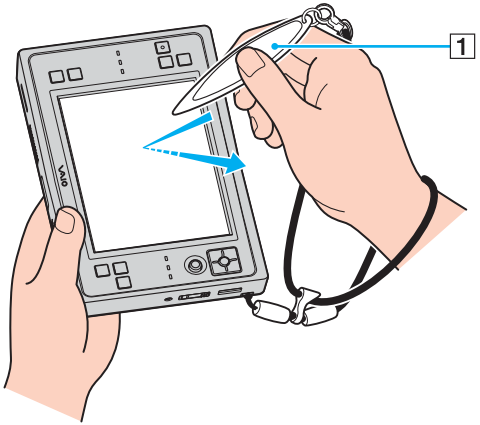
My speakers are not producing sound

❑ The built-in speakers may be turned off. Press <**Fn**>+<**F2**> to turn on the speakers.

- The speaker volume may be turned to the minimum. Press <**Fn**>+<**F4**> and then ↑ or → or keep pressing <**Fn**>+<**F4**> to increase the volume.
- If you are using the supplied ear set, turn its volume control to increase the volume.
- If your computer is powered by battery, check that the battery is attached properly and that it is charged.
- If you are using an application that has its own volume control, check that the volume is turned up.
- Check the volume controls in Windows.

Using the touch panel

Your computer's LCD is also a touch panel that allows for various actions with the stylus (1), including character input and software launch.

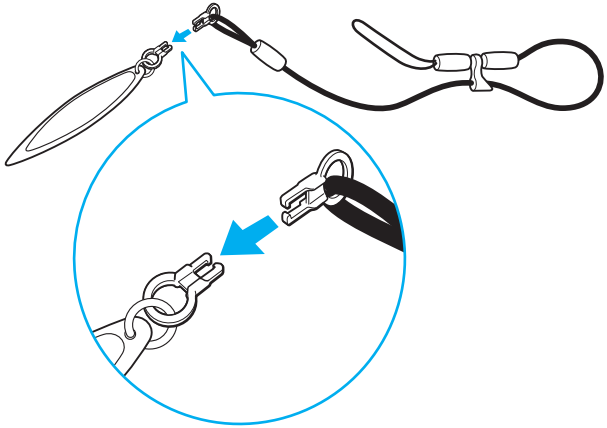


Action	*Description*
Tap	Gently hit the stylus once against the touch panel.
Double-tap	Gently hit the stylus twice against the touch panel.
Drag	Slide the stylus gently on the touch panel.

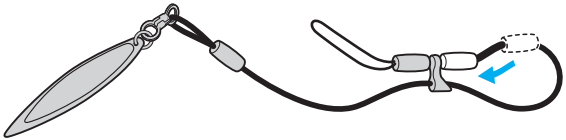
!
Before using your computer in the palm of your hand, make sure to attach the supplied strap to your computer and put it on around the wrist of your other hand to prevent the computer from dropping off.

!
Always use the supplied stylus for touch panel operations to prevent damage to the touch panel surface.

✍
You can attach the stylus to the strap as illustrated below:



When a rubber stopper is out of position on the strap, move it to its correct position before using the strap.



Calibrating the touch panel

In order to use the stylus's functions accurately, you must calibrate the touch panel.

To calibrate the touch panel, proceed as follows:

- Click **Start**, then **All Programs**, select **Touch Panel**, and click **Calibration**.
- Follow the on-screen directions.

Using the stylus

You can use the **ritePen®** software program or the **PenPlus for VAIO** software program to make use of the LCD's touch panel for character input and handwriting recognition.

To launch ritePen, proceed as follows:

- Click **Start**, then **All Programs**, select **Parascript**, then **ritePen**, and click **ritePen**.
- The program launches.

To launch PenPlus for VAIO, proceed as follows:

- Click **Start**, then **All Programs**, select **PenPlus**, and click **PenPlus for VAIO**.
- The program launches.

Troubleshooting the touch panel

My screen does not display anything

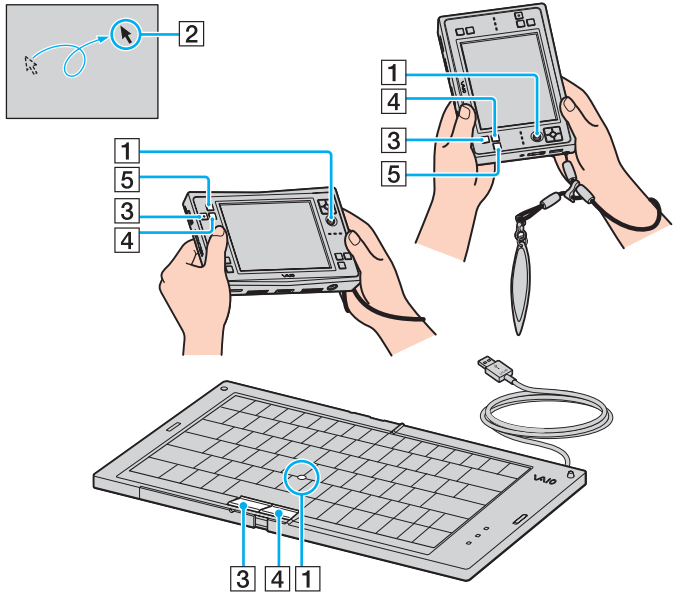
- The **HOLD** switch may be turned on.
  Slide the **HOLD** switch in the reverse direction of the arrow and bring your system back into normal mode.
- The output destination may be directed to the external display.
  Press the LCD/ (External display) button on the supplied display/LAN adapter or port replicator to switch the destination.
- In order to use the LCD/ (External display) button on the supplied display/LAN adapter or port replicator, check the **Sony Notebook Setup** setting.
  1. Go to **Start** > **All Programs** > **Sony Notebook Setup** and click **Sony Notebook Setup**.
     The **Sony Notebook Setup** window appears.
  2. Click the **Screen Resolution** tab.
  3. Check if the **Display contents on the LCD together with the external display** check box is selected.
     If not, click to select the check box.
  4. Click **OK**.

Using the pointing device

Your computer and the supplied folding keyboard are equipped with a cursor-pointing device, your multi-pointer (1). You can point to, select, drag, and scroll objects on the screen using the built-in multi-pointer.

Push the multi-pointer in the direction that you want to move the pointer on the screen. The harder you push the multi-pointer, the faster the pointer moves.

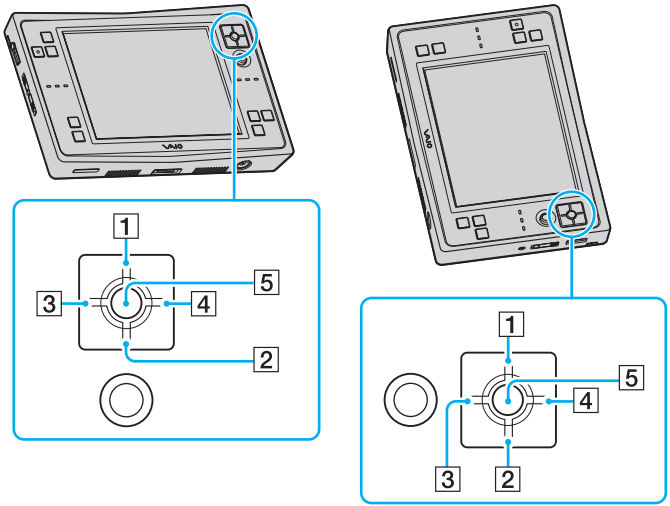
On rare occasions, the pointer may move on its own. This is not a malfunction. Leave the multi-pointer untouched for a while. The pointer will come to a halt.



Action	*Description*
Point	Push the multi-pointer to place the pointer (2) on an item or object.
Click	Press the left button (3) once.
Double-click	Press the left button twice.
Right-click	Press the right button (4) once. In many applications, this action displays a shortcut menu.
Drag	Push the multi-pointer while pressing the left button.

Action	*Description*
Scroll	Push the multi-pointer while pressing the centre button (5) (the scroll function is available only with applications that support a scroll feature).

Your computer is also equipped with the up (1), down (2), left (3), and right (4) cursor keys and the Enter key (5) for pointing operations. The cursor keys are equivalent to the arrow keys on the folding keyboard.



Troubleshooting the pointing device on the computer

The multi-pointer is not working

- The multi-pointer is disabled. Use **Sony Notebook Setup** to enable the multi-pointer.
- The Press to Select function of the multi-pointer on your computer may be disabled. Proceed as follows to enable the function.
  1. Click **Start** and then **Control Panel**.
     The **Control Panel** window appears.
  2. Click the **Printers and Other Hardware** icon.
  3. Click the **Mouse** icon.
     The **Mouse Properties** window appears.
  4. Click the **Device Settings** tab.
  5. Click **Settings**.
  6. Click **Press to Select** on the left side.
  7. Click to select the **Enable Press-to-Select** check box.
  8. Click **OK**.
- Your computer's multi-pointer uses static electricity from a human body to locate a position. If static electricity is discharged from a human body, the multi-pointer may be temporarily disabled.
  Press the **STANDBY** button on your computer to put the system into Standby mode and press it again to bring the system back into normal mode.
- The **HOLD** switch on your computer may be turned on.
  When the **HOLD** switch is on, the multi-pointer is disabled. Slide the **HOLD** switch in the reverse direction of the arrow.

The pointer does not move

Depending on the application in use, the pointer may temporarily freeze.

Wait for a while and try again. If the pointer sill does not move, connect the supplied folding keyboard and proceed as follows to turn off or restart your computer.

1. Press **<Ctrl>**+**<Alt>**+**<Delete>** simultaneously.
   The Windows Task Manager window appears.
2. Press **<Alt>**+**<U>** simultaneously, use **<**R**>** or **<**r**>** to choose **Turn off** or **Restart**, and then press **<Enter>**.

If this procedure does not work, slide the **POWER** switch in the direction of the arrow and hold it for at least four seconds.

My computer responds to click when I touch the multi-pointer

The Press to Select function of the multi-pointer on your computer is enabled. Proceed as follows to disable the function.

1. Click **Start** and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Printers and Other Hardware** icon.
3. Click the **Mouse** icon.
   The **Mouse Properties** window appears.
4. Click the **Device Settings** tab.
5. Click **Settings**.
6. Click **Press to Select** on the left side.
7. Click to deselect the **Enable Press-to-Select** check box.
8. Click **OK**.

Troubleshooting the pointing device on the folding keyboard

The cursor moves on its own during character input

The Press-to-Select function of the multi-pointer on the folding keyboard is enabled. Proceed as follows to disable the function.

1. Click **Start** and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Printers and Other Hardware** icon.
3. Click the **Mouse** icon.
   The **Mouse Properties** window appears.
4. Click the **External Multi pointer** tab.
5. Click to deselect the **Enable Press-to-Select** check box under **Press-to-Select**.
6. Click **OK**.

The multi-pointer is not working

The Press-to-Select function of the multi-pointer on the folding keyboard may be disabled. Proceed as follows to enable the function.

1. Follow step 1 to step 6 above.
2. Click to select the **Enable Press-to-Select** check box under **Press-to-Select**.
3. Click **OK**.

The pointer does not move

Depending on the application in use, the pointer may temporarily freeze.

Wait for a while and try again. If the pointer sill does not move, proceed as follows to turn off or restart your computer.

1. Press **<Ctrl>**+**<Alt>**+**<Delete>** simultaneously.
   The Windows Task Manager window appears.
2. Press **<Alt>**+**<U>** simultaneously, use **<R>** or **<r>** to choose **Turn off** or **Restart**, and then press **<Enter>**.

If this procedure does not work, slide the **POWER** switch in the direction of the arrow and hold it for at least four seconds until the computer turns off.

The pointer moves on its own while I'm not touching the multi-pointer

Remove the folding keyboard and connect it back to your computer. It takes some time for your computer to detect the connected folding keyboard. Allow a few seconds before using the multi-pointer on the keyboard.

My computer responds to click when I touch the multi-pointer

The Press-to-Select function of the multi-pointer on the folding keyboard is enabled. Disable the function.

Using special buttons

Your computer is provided with special buttons and a special switch to help you use the computer. Special buttons are also available on the supplied port replicator and the display/LAN adapter.

On the computer

❑ **ROTATE** button ROTATE :

Rotates the screen view 90 degrees clockwise. To restore the original view, press the button once again.

✍
The **ROTATE** button only works when the LCD color setting is Medium (16 bit) or Highest (32 bit).

✍
To set the wallpaper for the rotated screen view, rotate the screen view first.

✍
Pressing the **ROTATE** button changes the resolution, thus may cause a defect to any running software that does not support change in resolution. Make sure to quit such software before pressing the **ROTATE** button.

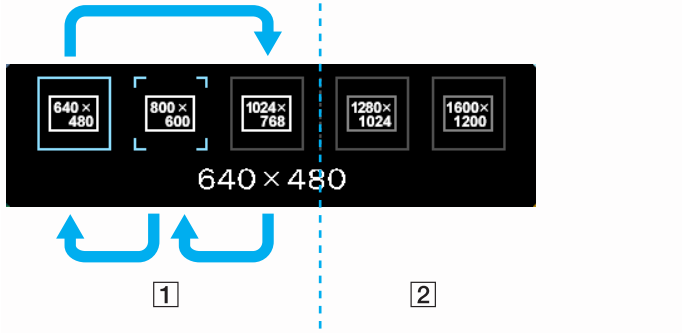
✍
The **ROTATE** button may not work with some software, or may even cause such software to malfunction.

✍
The location and size of software windows may change when the screen view is rotated because pressing the **ROTATE** button changes the resolution.

❑ **ZOOM** button ZOOM :

Changes the LCD resolution. When an external display is connected via the supplied display/LAN adapter or port replicator, you can also change the screen resolution of the external display.

Press the **ZOOM** button to display the resolution selection window and choose the resolution.



To choose one of the resolutions on the left (1), press the **ZOOM** button.

Available resolutions for the LCD and external display are:

- VGA: 640 x 480 pixels, Highest (32 bit)
- SVGA: 800 x 600 pixels, Highest (32 bit)
- XGA: 1024 x 768 pixels, Highest (32 bit)

Available resolutions when screen view is rotated are:

- VGA: 480 x 640 pixels, Highest (32 bit)
- SVGA: 600 x 800 pixels, Highest (32 bit)
- XGA: 768 x 1024 pixels, Highest (32 bit)

To choose one of the resolutions on the right (2), click on the desired resolution. You can also choose other resolutions by using the cursor keys.

Available resolutions for the LCD and external display are:

- SXGA: 1280 x 1024 pixels, Highest (32 bit)
- UXGA: 1600 x 1200 pixels, Highest (32 bit)

Available resolutions when screen view is rotated are:

- SXGA: 1024 x 1280 pixels, Highest (32 bit)
- UXGA: 1200 x 1600 pixels, Highest (32 bit)

When the screen resolution is greater than the LCD resolution, the VAIO Virtual Desktop appears to indicate the on-screen area of the desktop. Click on the VAIO Virtual Desktop to change the on-screen area.

On the VAIO Virtual Desktop, the following buttons are available:

Button	*Function*
(Mouse mode)	Allows normal mouse operations.
(Move mode)	Turns the pointer into a palm. You can drag the desktop to view your desired position. To return to Mouse mode, click the Mouse mode button or right-click on the desktop.
(Fit mode)	Downsizes the desktop to fit it into the LCD. Click your desired position on the desktop to display the desktop with the clicked position in the centre of the LCD at the original screen resolution.

Pressing the **ZOOM** button changes the resolution, thus may cause a defect to any running software that does not support a change in resolution. Make sure to quit such software before pressing the **ZOOM** button.

The **ZOOM** button may not work with graphic images as it magnifies the screen view by changing the resolution.

The location and size of software windows may change when the screen view is magnified or the standard view is restored because pressing the **ZOOM** button changes the resolution.

The magnified view is not as clear as the standard view due to compensation.

❑ **STANDBY** button STANDBY:

Puts your system into Standby mode (see Using Standby mode). To bring your system back into normal mode, press the **STANDBY** button once again.

When the supplied stick remote commander is connected to your computer, you can press the Jog lever to bring your system back into normal mode.

❑ **Brightness** button :

Changes the LCD brightness in three levels: **Brightness** (bright), **Brightness** (dark), and **Backlight off**.

❑ **Function selector** button :

Launches **VAIO Function Selector**. Choose the desired function with the function selector button or one of the cursor keys and press **Enter** to change the settings.

Button	*Function*
(Muting)	Toggles on and off the built-in speaker and the ear set.
(Volume)	Changes the built-in speaker volume and the ear set.
(Brightness)	Changes the LCD brightness.
(External Display)	Toggles between the LCD, external device (e.g. monitor) connected via the supplied display/LAN adapter or port replicator.
(Bass Boost)	Turns the **Bass Boost** function on/off.

❑ **Software Keyboard** (**NextText**) button :

Launches **Software Keyboard** or **NextText**, depending on your country or region.

❑ **HOLD** switch

:

Prevents accidental pressing of the buttons on your computer. Slide the **HOLD** switch in the direction of the arrow to activate HOLD mode. In HOLD mode, however, the following operations are available:

- ❑ Turning on and off the Wireless LAN functionality with the Wireless LAN switch
- ❑ Operations on the connected USB devices
- ❑ Operations on the supplied stick remote commander
- ❑ Button operations on the supplied port replicator

✍ Activating HOLD mode in the direction of the arrow puts system into power-saving mode to reduce power consumption. To bring your system back into normal mode, slide the **HOLD** switch in the reverse direction of the arrow and return to normal mode.

On the port replicator

❑ **Download** button:

The **Download** button, by default, launches the default browser software. You can also link another action that you execute often to this shortcut button. See Setting up your computer with Sony Notebook Setup.

❑ LCD/ (External Display) button:

Toggles between the LCD and an external device (e.g. monitor).

On the display/LAN adapter

LCD/ (External Display) button:

Toggles between the LCD and an external device (e.g. monitor).

Troubleshooting special buttons

*Pressing the **ZOOM** button does not change the screen resolution*

- When the software that places high load to the CPU is running, pressing the **ZOOM** button may cause a malfunction. It is strongly recommended that you should not use the **ZOOM** button while such software is running.
- The **ZOOM** button may not work with some software or even cause such software to malfunction. It is strongly recommended that you should not use the **ZOOM** button while such software is running.
- The **ZOOM** button is disabled during video playback.

*Pressing the **ROTATE** button does not rotate the screen view*

- The **ROTATE** button only works when the LCD colour setting is Medium (16 bit) or Highest (32 bit). Check the setting for appropriateness.
- The **ROTATE** button may not work with some software or even cause such software to malfunction. It is strongly recommended that you should not use the **ROTATE** button while such software is running.
- The **ROTATE** button is disabled during video playback.

*Pressing the **ROTATE** button displays the BIOS setup screen*

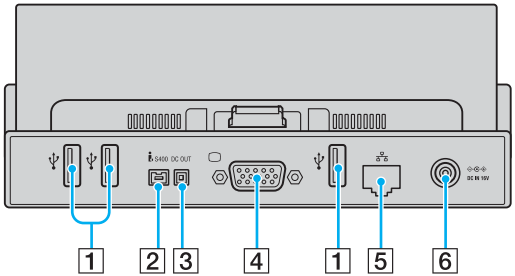
If you press the **ROTATE** button while the VAIO logo is on screen, the BIOS setup screen will appear.

To exit the BIOS setup screen, proceed as follows:

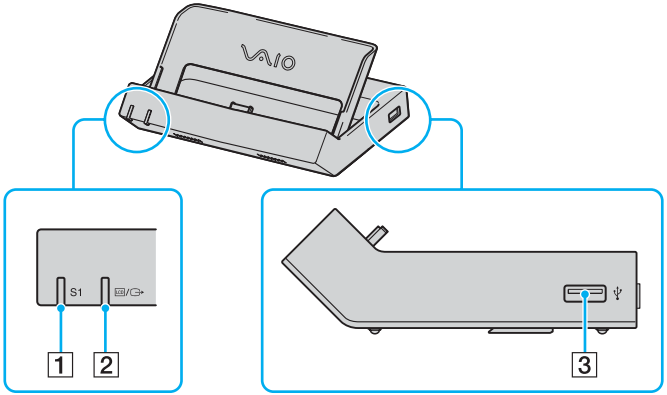
1. Use one of the cursor keys to select **Exit** and then **Exit (Discard Changes)**.
2. Press **Enter** to start Windows.

Using the port replicator

Your computer comes with the port replicator. Attaching the port replicator enables you to connect additional peripherals to your computer, such as an external display.



1	3 USB ports	See Connecting a Universal Serial Bus (USB) device	3	VAIO peripheral DC out	See Connecting the disc drive	5	Network	See Connecting to a network (LAN)
2	i.LINK port	See Connecting an i.LINK device	4	Monitor/VGA port	See Connecting a computer display	6	DC In	See Connecting a power source

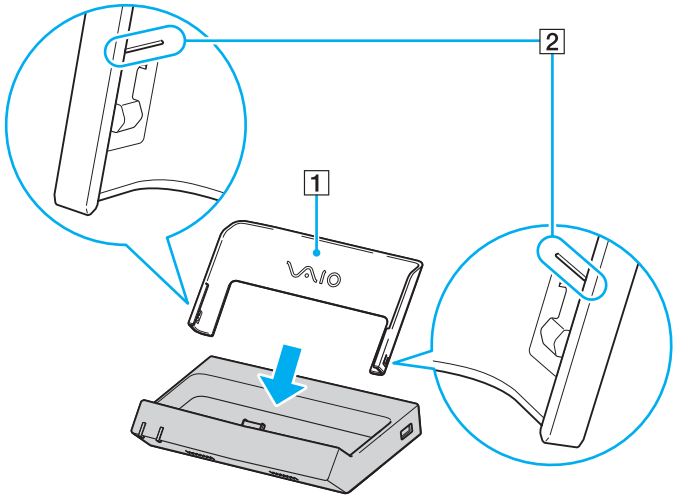


1	**Download** button	See On the port replicator	2	LCD/ (External Display) button	See On the port replicator	3	USB port	See Connecting a Universal Serial Bus (USB) device

The port replicator can be powered only with the AC adapter supplied with your computer. Do not remove the AC adapter from the port replicator or the AC outlet when using the port replicator; this may cause data damage or hardware malfunctions.

Attaching your computer to the port replicator

When using the port replicator, make sure to insert the holder (1) into the port replicator until the lines (2) on the holder are levelled with the port replicator surface.



! Before attaching your computer to the port replicator, make sure that the battery is attached and the computer is turned off.

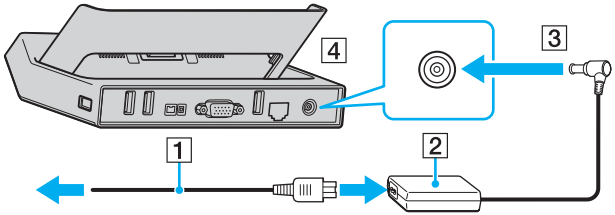
! Do not move your computer while attached to the port replicator, as it may detach from the port replicator and cause damage to the port replicator and the computer.

To attach your computer to the port replicator, proceed as follows:

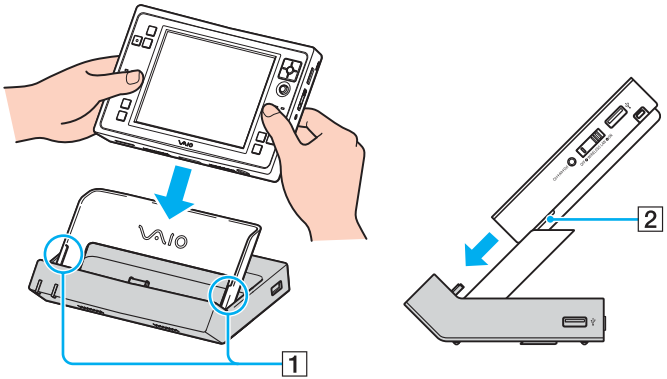
1 Disconnect all peripherals from the computer.

2 Plug the power cord (1) into the AC adapter and an AC outlet.

3 Plug the cable attached to the AC adapter (2) into the DC In port (3) on the port replicator (4).



4 Slide in the computer gently on the holder, fitting the guide rails (1) of the holder into the grooves (2) on the battery.
The **Download** and LCD/⎆ (External Display) buttons on the port replicator light green.



!
Do not attach your computer to the port replicator with excessive force, as it will cause a malfunction or result in damage.

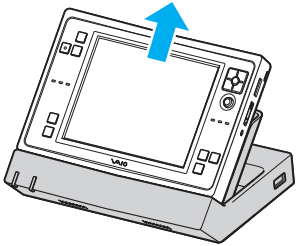
Use the AC adapter that comes with your computer or the optional Sony adapter.

Disconnecting your computer from the port replicator

Make sure to turn off your computer before disconnecting it from the port replicator to prevent loss of unsaved data.

To disconnect your computer from the port replicator, proceed as follows:

1. Turn off the computer and the connected peripherals.
2. Pull out the computer from the port replicator.



Using a disc drive

Your computer does not come with a portable disc drive, but you can purchase one separately. Connect the disc drive to your computer via the supplied port replicator and it is ready for CD/DVD operations. The necessary driver software is already installed.

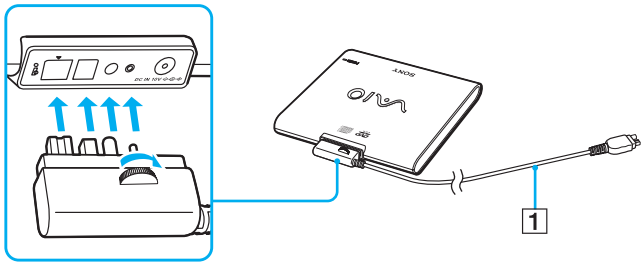
When you connect the disc drive for the first time, it may take some time before your system detects the disc drive.

Connecting the disc drive

To connect the disc drive, proceed as follows:

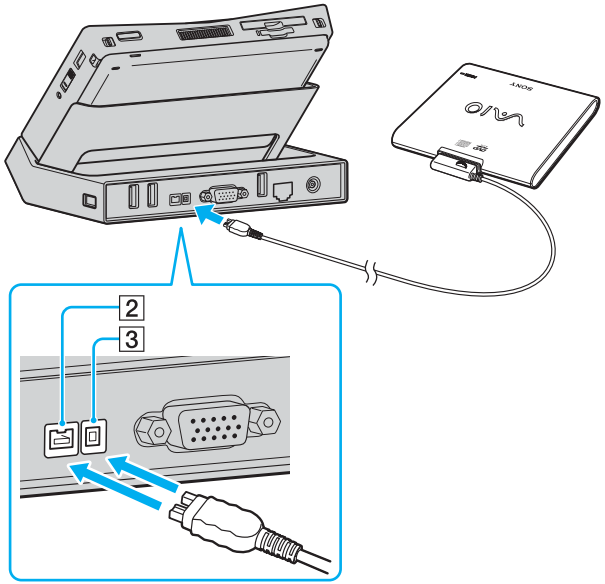
1 Connect the supplied port replicator to your computer. See Using the port replicator for more information.

2 Connect the L-shaped connector of the VAIO peripheral cable[1] (1) to the designated receptacle on the back of the disc drive and turn the wheel on the connector to secure it on the disc drive.



1 Supplied with the optical disc drive.

3 Connect the other end of the VAIO peripheral cable to the i.LINK (2) and VAIO DC OUT (3) connectors on the port replicator.



Disconnecting the disc drive

To disconnect the disc drive, proceed as follows:

1. Double-click the **Safely Remove Hardware** icon in the system tray.
   The **Safely Remove Hardware** dialog box appears.
2. Select the hardware you want to unplug.
3. Click **Stop**.
4. In the **Stop a Hardware Device** dialog box, confirm that the device can be safely removed from the system.
5. Click **OK**.
   A dialog box appears, explaining that it is safe to remove the device.
6. Click **OK**.
7. Click **Close**.
8. Unplug the connector of the VAIO peripheral cable from the port replicator.

!
Make sure that the disc drive contains no disc before disconnecting the disc drive.

Reading and writing CDs and DVDs

To achieve optimum performance when writing data onto a disc (also called "burning"), follow these recommendations:

- To make the data on a disc readable on an optical drive, you need to close the session when you eject it. To complete this process, follow the instructions included with your software.
- Only use circular discs. Do not use discs in any other shape (star, heart, card, etc.), as this may damage the disk drive.
- Do not strike or shake the computer while writing data to a disc.
- For optimal writing speed, deactivate the screensaver before writing data to a disc.
- Memory-resident disc utilities may cause unstable operation or data loss. Deactivate these utilities before writing data to a disc.
- When using your software application to burn discs, make sure you exit and close all other applications.
- Never touch the surface of the disc. Fingerprints and dust on the surface of a disc may cause writing errors.
- Do not put your VAIO computer into a power saving mode while using the pre-installed software and while using the CD burning software.
- Never put stickers on discs. This will affect the use of the disc irreparably.

Playing DVDs

To achieve optimum performance when playing DVDs, you should follow these recommendations.

- You can play DVDs using an optical drive and the **WinDVD** software.
- Close all open applications before playing a DVD movie.
- Do not use resident disc utilities or resident utilities to speed up the access of discs, because they may cause the system to become unstable.
- Make sure that the screensaver is deactivated.
- Region codes indicators are labelled on the DVDs to indicate in which region and on what type of player you can play the disc. Unless "all" (this means that you can play this DVD everywhere in the world) or the region code of your residence area, e.g. "1," is labelled on your DVD disc or on the packaging, you cannot play the disc on this player.
- If your computer has Wireless LAN and Wireless LAN is activated, playing DVDs may cause some interruptions in audio and video.

Troubleshooting the optical disc drive

My disc drive tray does not open

- Make sure the computer is turned on, then press the eject button on the drive.
- Click **Start**, and select **My Computer**. Right-click the optical disc drive and select **Eject**.
- Make sure the computer is not in **Standby** or **Hibernate** mode.
- If this does not work, try the following:
  When the computer is OFF, open the tray by inserting a sharp, pointed object (for example a paperclip) into the manual eject hole of the optical disc drive.

I cannot play a disc

- After inserting the disc, wait for a few seconds for the system to detect it before you try to access it.
- Make sure the label of the disc is facing up.
- If the disc requires software, make sure the software is installed according to the instructions of the program.
- Check the volume of your speakers.
- Clean the disc with an appropriate cleaner.
- Make sure your computer is running on AC power supply only and try the disc again.
- There may be condensation in the drive. Remove the disc and leave the drive open for approximately one hour. Remove the battery while you wait for the condensation to disappear.

I cannot play a DVD

- If a region code warning appears when you are using the DVD player, it could be that the DVD you are trying to play is incompatible with the DVD drive on your computer. The region code is listed on the packaging of the disc.
- Change the resolution under **Control Panel** - **Display** to a lower resolution.
- If you see video but cannot hear sound, check all of the following:
  - Make sure the mute setting is off on your DVD player.
  - Check the **Master Volume** settings of the **Sounds and Audio Device Properties**.
  - If you have connected speakers externally, check the volume settings of your computer speakers and check the connections between your speakers and the computer.
  - In the **Device Manager**, check that the correct drivers are installed properly. To display the **Device Manager**, click **Start**, then **Control Panel**. Click **Performance and Maintenance** and then the **System** icon. On the **Hardware** tab, click the **Device Manager** button.
- A dirty or damaged disc may cause the computer to "hang" while it tries to read the disc. If necessary, reboot the computer, remove the disc and then check that it is not dirty or damaged.
- Check your PG settings (Parental Guidance) in the DVD software as they might be preventing you from playing certain DVDs when they are activated.

I cannot play a DVD when using two screens

- You will not have a problem in the following situations:
  - When you use a CRT or an LCD display on its own.
  - When you play MPEG files which are recorded on the hard disk drive with **Windows Media Player 9**.

I cannot play a DVD VIDEO

Check if the region code of your drive is appropriate.

To check the region code setting, proceed as follow:

1. Click **Start** and then **My Computer**.
2. Right-click the disc drive icon and click **Properties** in the menu.
3. Click the **Hardware** tab.
4. Select the DVD/CD-ROM drive from the **All disk drives** list and click **Properties**.
5. Click the **DVD Region** tab.

   Check if the region code specified for **Current Region** is appropriate.

The reading speed of CD/DVD-RWs is very slow

Generally, the reading speed of a CD/DVD-RW is slower than that of a -ROM or -R. The reading speed can also vary depending on the type of format.

The disc tray does not eject even when the eject button is pressed

- ❑ Check that the computer is turned on.
- ❑ The CD-writing application software may be stopping the disc from being ejected.
- ❑ Make sure the computer is not in **Standby** or **Hibernate** mode.

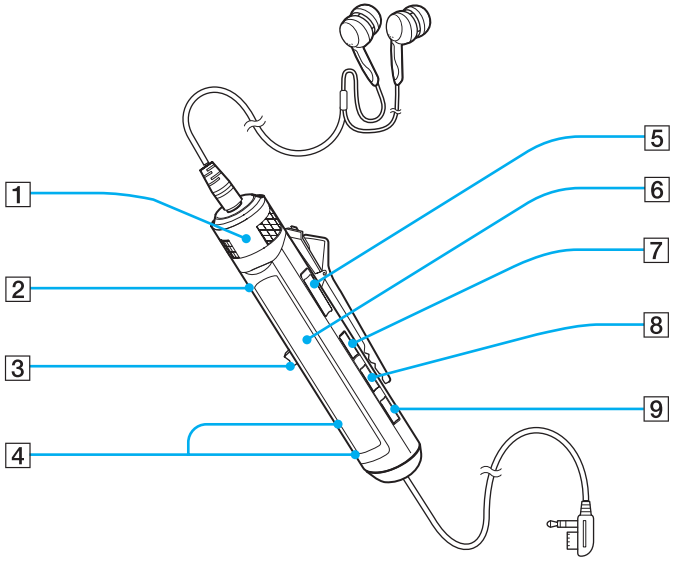
The disc tray ejects even when it has been locked into place

- Ensure that the disc is placed with the label side facing up.
- Clean the disc and the disc drive lens with an appropriate cleaner.
- The disc may be scratched. Place another disc to see if that is the reason.
- There may be condensation in the drive. Remove the disc and leave the drive open for approximately one hour. Remove the battery while you wait for the condensation to disappear.

Using the stick remote commander and the ear set

Your computer comes with a stick remote commander in order to make great use of the **Windows Media Player** software.

You can change the stick remote commander settings. To change the settings, go to **Start** > **Control Panel** > **Printers and Other Hardware** and click **Stick Remote Commander**. For more information, click **Help** on the **Stick Remote Commander Properties** window.



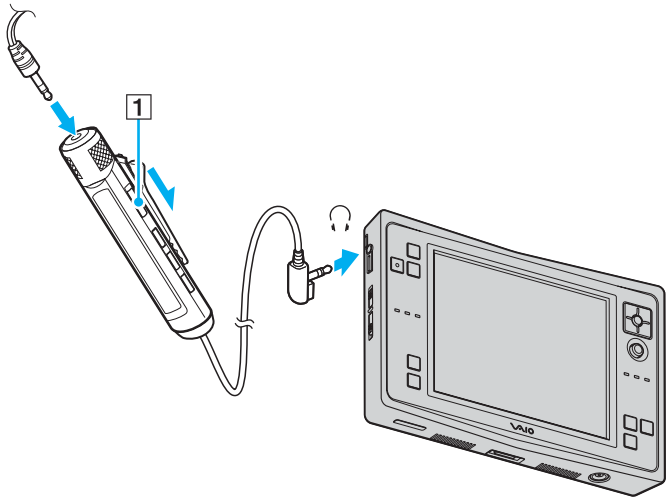
1	**VOL** control	Turn the control to increase or decrease the ear set volume. You can set the volume independently for the built-in speakers and the ear set. Connecting and disconnecting the stick remote commander toggles the volume setting between the built-in speakers and the ear set, and displays the dialog box[1] to indicate it.	2	■ button	Stops playing contents.
3	Jog lever (⏮, ⏯ / ENT, ⏭)	Use the Jog lever to play, pause, cue, fast-forward, and rewind contents.	4	+/- buttons	These buttons are currently not assigned to any functionality with **Windows Media Player**. +:No current functionality. -: No current functionality.
5	**HOLD** switch	Prevents accidental press to the buttons on your computer.	6	Display window	Displays information, such as the remaining battery life and the content description.
7	**DISPLAY** button	Displays information on the contents now in play, such as the remaining playback time. ✍ You can keep pressing the **DISPLAY** button to display the **Stick Remote Commander Menu**. Then, you can put your computer in **Standby** mode or check the current time.	8	P MODE / ⮌ button	You can specify the playback method.
9	**SOUND** button	Turns on/off the **Bass Boost** function (only with the ear set).			

1 You can also change the setting to hide this dialog box. To change the setting, go to **Start** > **Control Panel** > **Printers and Other Hardware** and click **Stick Remote Commander**.

Connecting the stick remote commander and the ear set

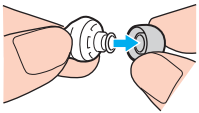
Connect the ear set to the stick remote commander and to your computer as illustrated below.

Make sure that the **HOLD** switch (1) on the stick remote commander is off.



Attaching an ear piece

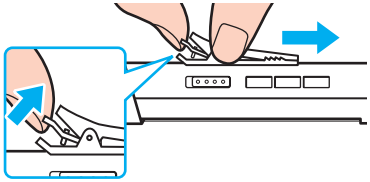
The supplied ear set comes with the medium-sized ear pieces attached. If these ear pieces do not fit comfortably in your ears, replace them with the supplied large- or small-sized ear pieces. Improperly fitting ear pieces may cause bass notes to be inaudible.



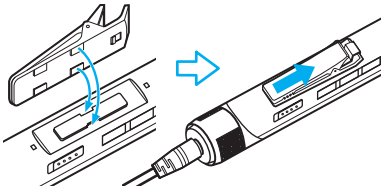
Using the clip on the stick remote commander

Depending on how you wear the stick remote commander, the text in the display window may appear upside down. In such event, reverse the orientation of the clip on the stick remote commander.

1 Raise and slide the clip in the direction of the arrows to remove it from the stick remote commander.



2 Turn around the clip and attach it again to the stick remote commander.



Troubleshooting the stick remote commander

The remote commander does not work

- Check if the **HOLD** switch on the stick remote commander is turned on.
  To turn off the **HOLD** switch, slide the switch in the reverse direction of the arrow.
- Check the connection between the ear set, the stick remote commander, and your computer.
- The stick remote commander is only designed for controlling **Windows Media Player** operations.

I cannot control Windows Media Player

- You must first launch **Windows Media Player** to control it with the stick remote commander. Go to **Start** > **All Programs** > **Windows Media Player** and click **Windows Media Player** to launch the software.
- You can also choose to start Windows Media Player automatically by pressing the play button on the stick remote commander. To do this, please check the “Launch application with jog lever” on the properties dialog opened by selecting **Start** > **Control Panel** > **Printers and Other Hardware**, and selecting **Stick Remote Commander**.

I can control Windows Media Player, but Stick Remote Commander display does not display any information except battery and bass boost icon.

Windows Media Player will sometimes release plug-ins if it encounters any problems. By selecting **Tools** > **Plug-ins** > **Plugin for Stick Commander** from the Windows Media Player menu, the plug-in will be connected, and Stick Remote Commander display should work again.

I cannot suspend my system after listening to Windows Media Player contents from the welcome screen.

Trying to go to Suspend mode while playing Windows Media Player will cause Windows Media Player to display a dialog indicating that the media playback might be paused or stopped by going into suspend. To stop this problem, please login and close the dialog after checking the “never display again” check box. If you want this dialog to be displayed at a later date, do not check the “never display again” check box.

I cannot bring my system into normal mode from power-saving mode with the stick remote commander

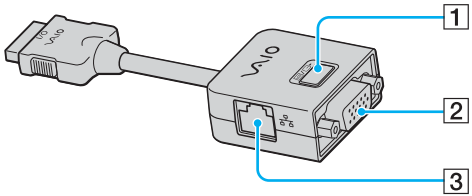
When your system is in Hibernate mode, you cannot bring it back into normal mode with the stick remote commander. Press the **STANDBY** button or slide the **POWER** switch briefly in the direction of the arrow.

You can check the following to see if your system is in Standby or Hibernate mode.

- Standby mode
  The power indicator is flashing amber.
  The battery icon is on the stick remote commander's display window.
- Hibernate mode
  The power indicator is not lit.
  The battery icon is not on the stick remote commander's display window.

Using the display/LAN adapter

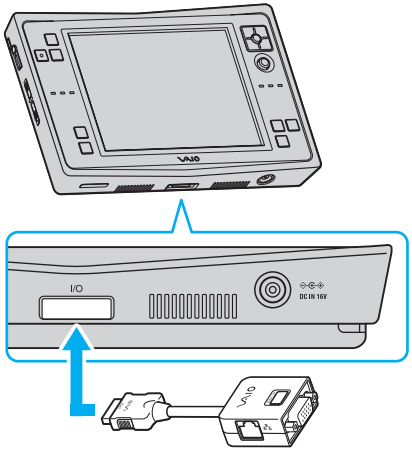
Your computer comes with the display/LAN adapter. Attaching the display/LAN adapter enables you to connect an external display and access your network.



1	LCD/ (External Display) button	See On the display/LAN adapter	2	Monitor/VGA port	See Connecting a computer display	3	Network	See Connecting to a network (LAN)

Connecting the display/LAN adapter

Connect the display/LAN adapter, with the **VAIO** logo facing upward, to the I/O connector on the bottom of your computer.



To disconnect the display/LAN adapter from your computer, push in the button on either side of the adapter connector.

Using Memory Stick media

Your VAIO computer is designed to support Memory Stick media. A Memory Stick is a compact, portable, and versatile device especially designed for exchanging and sharing digital data with compatible products, such as digital cameras, mobile phones, and CLIE handheld devices. Because it is removable, it can be used for external data storage.

Use the flash memory technology to download anything that can be converted into digital data, such as pictures, music, words, sounds, movies and photographs. The Memory Stick family ranges in capacity and compatibility.

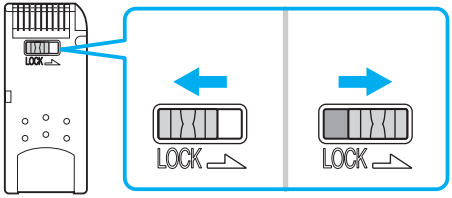
- Detailed information about available optional accessories can be found here: http://www.sonystyle.com.
- Detailed information about which CLIE handhelds are compatible with which Memory Sticks can be found here: http://www.clie-link.com/.
- Detailed information about which VAIO computers are compatible with which Memory Sticks can be found here: http://www.memorystick.com/en/.

Write-protecting a Memory Stick

Some Memory Stick media is designed with an erasure prevention switch to protect valuable data from accidental erasure or overwriting.

Move the tab horizontally or vertically[1] to set or release write-protection. When the erasure prevention switch is off, data can be saved on the Memory Stick. When the erasure prevention switch is on, data can be read from but not saved on the Memory Stick.

1 Some types of Memory Stick media do not have a erasure prevention switch.

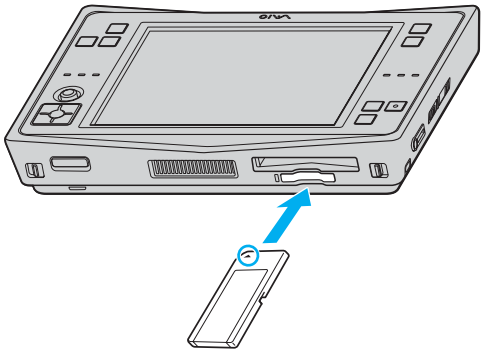


Inserting a Memory Stick

You can only insert one Memory Stick at a time.

To insert a Memory Stick using the Memory Stick slot, proceed as follows:

1. Once you have stored your data from your digital device, insert the Memory Stick with the arrow facing up and toward the Memory Stick slot.
2. Carefully slide the Memory Stick into the slot until it clicks in place.
   The Memory Stick is automatically detected by your system and appears in your **My Computer** window as a local drive, under the appropriate letter (depending on the configuration of your computer).



!
Hold the Memory Stick with the arrow pointing in the correct direction when you insert it into the slot. To avoid damaging the computer or the Memory Stick, do not force the Memory Stick into the slot if it does not insert smoothly.

Removing a Memory Stick

To remove a Memory Stick using the Memory Stick slot, proceed as follows:

1. Check that the access light is off.
2. Push the Memory Stick in towards the computer.
   The Memory Stick ejects.
3. Pull the Memory Stick out of the slot.

✍
Always remove the Memory Stick gently, or it may pop out unexpectedly.

✍
Do not remove the Memory Stick while the Memory Stick indicator is turned on. If you do, you may lose data. Loading large volumes, for example, image clips, may take a while.

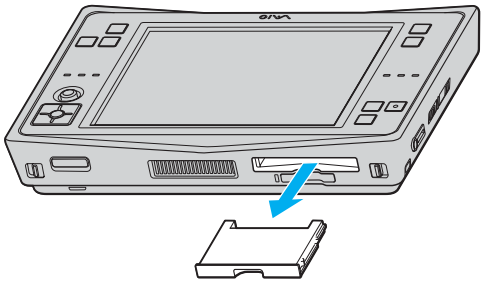
Using Compact Flash Cards

Your computer is equipped with a Compact Flash Card slot that can accommodate a Type II Compact Flash Card. You can use Compact Flash Cards for data storage and exchange.

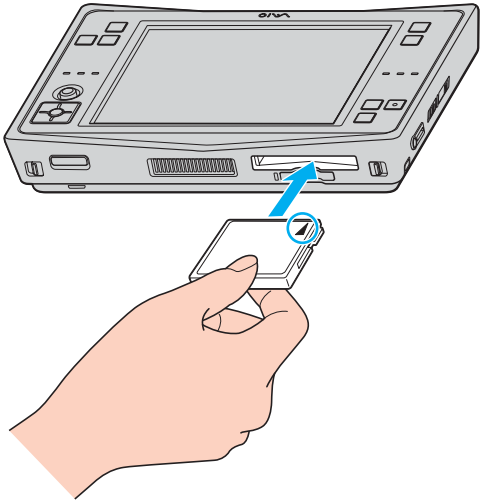
Inserting a Compact Flash Card

To insert a Compact Flash Card, proceed as follows:

1 Remove the Compact Flash protector from the slot.
To protect the Compact Flash Card slot, the slot contains the Compact Flash protector by default. You must remove the protector before inserting a Compact Flash Card into the slot.



2 Insert a Compact Flash Card into a slot.
Make sure that the Compact Flash Card is secured in the slot.



To view the contents of the Compact Flash Card, go to **Start** > **My Computer** and click the removable disk icon in the **My Computer** window.

!
Make sure to insert the Compact Flash Card in the correct orientation, as it may otherwise damage the slot. For more information, refer to the manual provided by your Compact Flash Card manufacturer.

Removing a Compact Flash Card

Follow the steps below to remove the Compact Flash Card while your computer is on. If it is not removed properly, your system may not work properly. If you want to remove a Compact Flash Card when your computer is off, just take out the Compact Flash Card from the slot.

To remove a Compact Flash Card, proceed as follows:

1. Double-click the **Safely Remove Hardware** icon in the system tray.
   The **Safely Remove Hardware** dialog box appears.
2. Select the hardware you want to unplug.
3. Click **Stop**.
4. In the **Stop a Hardware Device** dialog box, confirm that the device can be safely removed from the system.
5. Click **OK**.
   A dialog box appears, explaining that it is safe to remove the device.
6. Click **OK**.
7. Click **Close**.
8. Take out the Compact Flash Card from the slot.

! If you remove the Compact Flash Card from the computer when it is still turned on, your system may crash and you may lose any unsaved data.

! Before you remove the Compact Flash Card, click the Compact Flash Card icon on the taskbar and close the card. Close any applications that use the Compact Flash Card before removing the card. Otherwise, data may be lost.

Using Wireless LAN (WLAN)

Thanks to Sony's Wireless LAN (WLAN), all your digital devices with built-in WLAN functionality communicate freely with each other through a powerful network. A WLAN is a network in which a mobile user can connect to a local area network (LAN) through a wireless (radio) connection. So there is no need any more to pull cables or wires through walls and ceilings.

The Sony WLAN supports all normal Ethernet activities, but with the added benefits of mobility and roaming. You can still access information, internet/intranet and network resources, even in the middle of a meeting, or as you move from one place to another.

You can communicate **without an Access Point**, this means that you can communicate between a limited number of computers (**ad-hoc**), or you can communicate **through an Access Point**, which allows you to create a full infrastructure network (**infrastructure**).

In some countries, using WLAN products may be restricted by the local regulations (e.g. limited number of channels). Therefore, before activating the WLAN functionality, read any regulatory information provided in the **Safety Information** booklet. Channel selection is explained further in this manual (see Wireless LAN channel selection).

WLAN uses the IEEE 802.11b/g standard, which specifies the technology. The standard includes the encryption method: **Wired Equivalent Privacy** (WEP), which is a security protocol and **WiFi Protected Access** (WPA - Proposed jointly by the IEEE and Wi-Fi Alliance, WiFi Protected Access is a specification of standards based, interoperable security enhancements that increase the level of data protection and access control for existing WiFi networks. WPA has been designed to be forward compatible with the IEEE 802.11i specification. It utilizes the enhanced data encryption TKIP (Temporal Key Integrity Protocol) in addition to user authentication using 802.1X and EAP (Extensible Authentication Protocol)). Data encryption protects the vulnerable wireless link between clients and Access Points. Besides that, there are other typical LAN security mechanisms to ensure privacy, such as: password protection, end-to-end encryption, virtual private networks, and authentication.

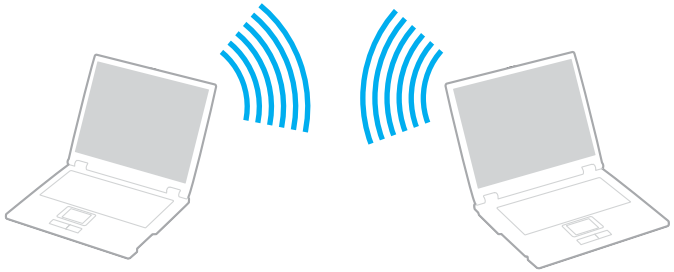
Wireless LAN devices using the IEEE 802.11a standard and the ones using the IEEE 802.11b or g standard cannot communicate because the frequencies are different. Wireless LAN devices using the IEEE 802.11g standard can only communicate with a device using the IEEE 802.11b standard, not with the IEEE 802.11a standard.

IEEE 802.11b: The standard speed is 11 Mbps, or about 30 to 100 times faster than a standard dial up.

IEEE 802.11g: The standard speed is 54 Mbps, or about 5 times faster than a Wireless LAN device using the IEEE 802.11b standard.

Communicating without Access Point (ad-hoc)

An ad-hoc network is a network in which a local network is created only by the wireless devices themselves, with no other central controller or Access Point. Each device communicates directly with other devices in the network. You can set up an ad-hoc network easily at home.



To communicate without Access Point (ad-hoc), proceed as follows:

1. Turn on the **Wireless LAN** switch.
2. Double-click the network icon on the taskbar displaying **Wireless Network Connection**.
   The **Wireless Network Connection** dialog box appears.
3. Click the **Change advanced settings** button.
   The **Wireless Network Connection Properties** dialog box appears.
4. Select the **Wireless Networks** tab.
5. Click the **Add…** button.
   The **Wireless network properties** dialog box appears.
6. Enter a **Network name (SSID)***.
   You can choose up to a **32-digit** alphanumeric name.
7. Select **Open** from the **Network Authentication** drop-down box.
8. Select **WEP** from the **Data Encryption** drop-down box.
9. Deselect the **The key is provided for me automatically** option button.
   Some information becomes visible.

10 Fill in the **Network key**[1].

The network key should be **5 or 13 alphanumeric characters** or **10 or 26 hexadecimal**[2] **characters** long. You can choose whatever you want.

11 Fill in exactly the same **Network key** again, for confirmation.

12 Select the check box **This is a computer-to-computer (ad hoc) network; wireless access points are not used** at the bottom of the screen.

13 Click **OK**.
Your **Network name** appears in the **Preferred networks**.

14 Click **Advanced**.
The **Advanced** dialog box appears.

15 Select the **Computer-to-computer (ad hoc) networks only** option button.

16 Click **Close**.

17 Click **OK**.
Your computer is ready to communicate with another computer.

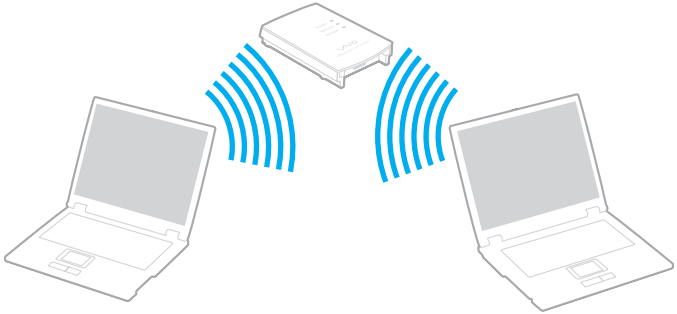
An ad-hoc network does not support WPA.

1 If you want to communicate between two or more computers, you need to configure all these computers the exact same way. This means that you need to enter the same **Network name** and the same **Network key** on all computers as on the first computer you configure.

2 **Hexadecimal**: A number representation using the digits 0-9, with their usual meaning, plus the letters A-F (or a-f) to represent hexadecimal digits with values of (decimal) 10 to 15.

Communicating with an Access Point (infrastructure)

An infrastructure network is a network that extends an existing wired local network to wireless devices by providing an Access Point, for example the **Sony Access Point**. The Access Point bridges the wireless and wired LAN and acts as a central controller for the Wireless LAN. The Access Point coordinates transmission and reception from multiple wireless devices within a specific range.



To communicate with an Access Point (infrastructure), proceed as follows:

1. Turn on the **Wireless LAN** switch.
2. Right-click the network icon on the taskbar displaying the **Wireless Network Connection** message.
3. Click **View Available Wireless Networks**.
   The **Wireless Network Connection** dialog box appears.
4. Select the network you want to use.
5. Type the **Network Key**.
6. Click **Connect**.
   After 30 seconds, the connection is established.

For more information about setting up an access point, see the documentation supplied with your **Access Point**.

The WPA key needs to contain at least 8 characters.

Using the WiFi protected access (WPA)

WPA is a wireless security enhancement that allows you to transfer data in a highly secure way[1].

To use WPA on your notebook, proceed as follows:

1. Turn on the **Wireless LAN switch**.
2. Right-click the network icon on the taskbar displaying **Wireless Network Connection**.
3. Select **View available network connections**.
   The **Wireless Network Properties** dialog box appears.
4. Select the wireless network to which you want to connect.
5. Fill in the **Network key**.
   The network key should be at least 8 characters long.
6. Fill in exactly the same **Network key** again, for confirmation.
7. Click **Connect**.
   The connection is established.

In Ad-hoc mode, WPA security cannot be used (specifications in the standard itself).

1 For more information on the access point, please refer to its manual.

Wireless LAN channel selection

In a 802.11b/g configuration, channel 1 to 11 can be used.

(a) With an Access Point ("Infrastructure")

- The channel used will be the channel selected by the Access Point.
- ATT: For details on how to select the channel that will be used by the Access Point, please refer to the corresponding Instruction Manual.

(b) Without Access Point ("Ad-Hoc")

- If the Wireless connection is initiated by the VAIO computer, channel 11 will be selected.
- If the Wireless connection is initiated by a peer Wireless LAN equipment, the Wireless LAN communication will make use of the channel selected by the peer Wireless LAN equipment.

!
The 2.4 GHz bandwidth used by wireless LAN compatible devices is also used by other various devices. Although technologies to minimize interference from other devices that uses the same bandwidth are employed on wireless LAN compatible devices, such interference may cause lower communication speed, narrower communication range, or broken wireless connections.

!
The communication speed varies depending on the distance between communication devices, existence of obstacles between such devices, the device configuration, the radio conditions, and the software in use. In addition, communications may be cut off depending on the radio conditions.

!
The communication range varies depending on the actual distance between communication devices, existence of obstacles between such devices, the radio conditions, the ambient environment that includes existence of walls and materials of such walls, and the software in use.

!
Deploying IEEE 802.11b and IEEE 802.11g products on the same wireless network may reduce the communication speed due to radio interference. Taking this into consideration, the IEEE 802.11g products are designed to reduce the communication speed to ensure communications with IEEE 802.11b products.
When the communication speed is not as fast as expected, changing the wireless channel on the access point may increase the communication speed.

Troubleshooting Wireless LAN

I cannot use the Wireless LAN functionality

Check if the **Wireless LAN** switch is turned on.

The Wireless LAN Access Point and your computer cannot communicate

- ❑ Check if the Wireless LAN switch is turned on.
- ❑ Check if the power of the Access Point is turned on.
- ❑ Check if the Access Point is displayed in the **Available networks** window.

- To check this, click Start and then **Control Panel**.
- Click **Network and Internet Connections**.
- Click the **Network Connections** icon.
- Right-click the **Wireless Network Connection** icon and select **Properties**.
- Select the **Wireless Networks** tab.
- Check if the Access Point is displayed in **Available networks**.
- Connection availability is affected by distance and obstructions. You may need to move your computer away from obstructions or neared to any Access Point you may be using.

The data transfer speed is slow

- The maximum communication speed can vary depending on the obstacles or the distance between the communication devices, the radio waves, the operating system or the software you use. Remove the obstacle or make the distance between the Access Point and your machine smaller.
- It is possible that your Access Point communicates at the same time with another Access Point. Read the manual of the Access Point.
- If several computers communicate with the same Access Point, the concentration may be too high. Wait a few minutes and try to access again.
- If a Wireless LAN device using the IEEE 802.11g standard communicates with a device using the IEEE 802.11b standard, then it is normal that the speed reduces. Devices using the IEEE 802.11g standard are 5 times faster then the ones using the IEEE 802.11b standard.

I cannot access the Internet

- Check the settings of the Access Point. See the manual of the Access Point.
- Check if your computer and the Access Point are communicating.
- Make the distance between the Access Point and your machine smaller.

I cannot use a Wireless LAN network

Check if the **Wireless Zero Configuration** service is active.

To check the status of the **Wireless Zero Configuration service**, proceed as follows:

1. Click **Start** and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Performance and Maintenance** icon.
3. Click the **Administrative Tools** icon.
4. Double-click the **Services** icon.
   The **Services** window appears.
5. Check **Status** and **Startup Type** for **Wireless Zero Configuration**.
   When **Started** and **Automatic** are shown under **Status** and **Startup Type**, respectively, the **Wireless Zero Configuration** service is active.

To activate the **Wireless Zero Configuration service**, proceed as follows:

1. On the **Services** window, right-click **Wireless Zero Configuration** and click **Properties**.
   The **Wireless Zero Configuration Properties** window appears.
2. Select **Automatic** for **Startup type** and click **Apply**.
3. Click **Start** under **Service status**.
4. Click **OK** to close the window.

Using power saving modes

When you use a battery as the source of power for your computer, you can take advantage of power management settings to conserve battery life. In addition to the normal operating mode, which allows you to turn off specific devices, your computer has two distinct power saving modes: **Standby** and **Hibernate**. When using battery power, you should be aware that the computer automatically enters **Hibernate** mode when the remaining battery charge becomes short, regardless of the power management setting you select.

If the battery level falls below 10 percent, you should either attach the AC adapter to recharge the battery or shut down your computer and insert a fully charged battery.

Using Normal mode

This is the normal state of your computer when it is in use. The green power indicator light is on in this mode. To save power while not working, you can turn off a specific device such as the LCD or the hard disk.

Using Standby mode

Standby mode turns off the LCD screen and sets the hard disk and the CPU to a low power consumption mode. The umber power light flashes in this mode.

To activate Standby mode, proceed as follows:

Press the **STANDBY** button or go to **Start**/**Turn Off Computer** and click **Stand By**.

To return to **Normal** mode,

- press the **STANDBY** button.
- press any of the Enter and cursor keys on your computer.
- slide the **POWER** switch in the direction of the arrow.
- press the Jog lever if the remote commander is attached.

If you slide and hold the power switch for more than four seconds, the computer will switch off automatically. You will lose any unsaved data.

When the computer is in **Standby** mode, you cannot insert a disc.

The computer comes out of **Standby** mode quicker than out of **Hibernate** mode.

Standby mode uses more power than **Hibernate** mode.

If the battery runs down when your computer enters **Standby** mode, you will lose any unsaved data. Going back to the previous work state is impossible. To avoid loss of data, you should save your data frequently.

If the computer is not used for 25 minutes, it will enter System Standby mode when running on AC power. When running on batteries, the computer also will enter **System Standby** mode after 25 minutes if unused. To avoid this, you can change the settings in the **Power Options Properties** screen (right-click the **power status** icon on the taskbar - select **Adjust Power Properties** - select the **Power Schemes** tab and change the settings in **Settings for VAIO optimized power scheme**).

Using Hibernate mode

The state of the system is saved on the hard disk and power is turned off. Even when the battery runs down, no data will be lost. The power indicator light is off in this mode.

To activate Hibernate mode, proceed as follows:

Slide the **POWER** switch in the direction of the arrow (default assignment).

The **Hibernating** screen appears and the computer enters **Hibernate** mode.

If the folding keyboard is connected to your computer,

Click **Start**, and then **Turn Off Computer**.

In the **Turn off computer** screen, hold down the <**Shift**>-key and click **Hibernate**.

To return to Normal mode, proceed as follows:

Turn on the computer by sliding the **POWER** switch in the direction of the arrow or pressing the **STANDBY** button.

The computer returns to its previous state.

✍
If you slide and hold the power switch for more than four seconds, the computer will switch off automatically.

✍
If you do not use the AC adapter for a long period of time, put your computer into **Hibernate** mode. This power saving mode saves you the time of shutting down in the normal way.

✍
When the computer is in **Hibernate** mode, you cannot insert a disc.

✍
Hibernate mode requires more time than **Standby** mode to be activated.

✍
It takes more time to return to **Normal** mode from **Hibernate** mode than from **Standby** mode.

✍
Hibernate mode uses less power than **Standby** mode.

✍
Do not move the computer until its power indicator turns off.

Troubleshooting power management

The power management setting is not responding

Your computer's operating system may become unstable if a lower power state, such as **Hibernate** is initiated, and then changed before the computer completely enters the lower power state.

To restore the computer to its normal operating stability, proceed as follows:

1. Close all open applications.
2. Press the **<Ctrl>+<Alt>+<Delete>** button (located on the right side of your computer) or <**Ctrl**>+<**Alt**>+<**Delete**> simultaneously on the folding keyboard and select **Restart** from the **Shut Down** drop-down list.
   The computer restarts.
3. If the procedure does not work, press and hold the power button for four seconds or longer to shut down the computer.

Managing power with VAIO Power Management

Power management helps you to set up power schemes of your computer that is running on AC power or batteries to suit your requirements for power consumption.

VAIO Power Management is a software application developed exclusively for VAIO computers. With this software application, you can enhance the Windows power management functions to ensure better operations of your computer and for longer battery life.

Activating VAIO Power Management

When you start the computer, a **power status** icon appears on the taskbar. This icon indicates what kind of power source you are using at that time, e.g., AC power. If you double-click this icon, the **Power Meter** screen appears showing you the power status.

VAIO Power Management functionalities are added to the Windows **Power Options Properties**.

To activate VAIO Power Management, proceed as follows:

1. Click **Start** and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Performance and Maintenance** icon.
3. Click **Power Options** icon.
   The **Power Options Properties** window appears.
4. Select the **VAIO Power Management** tab.

Activating VAIO Power Management power schemes

VAIO Power Management provides several predefined **power schemes**. Each power scheme consists of a group of power management settings that are designed to meet specific power management goals, ranging from maximum power management to no power management.

To activate a VAIO Power Management power scheme, proceed as follows:

1. Open **Adjust Power Properties**.
2. Select the **Power Schemes** tab.
3. Select a power scheme from the **Power schemes** drop-down list.
4. If you now select the **VAIO Power Management** tab, you see that the selected power scheme appears to the right of **Power Scheme**.
5. If necessary, you can change the items in the list, e.g., the brightness of the LCD.
6. Click **OK**.
   The power scheme has been activated.

✍
You must have computer administrator rights on your computer to set up a power scheme.

✍
For more information on **VAIO Power Management** and **Power Schemes**, please read the online help file.

Power Scheme	*Description*
Power Management Off	Turns off all power management features such as Standby and Hibernate modes.
VAIO Optimized	The default power management state for either power source.
VAIO Maximum Battery	Provides power saving features to give you maximum battery life and good performance when battery power is in use. It reduces the brightness of the display and puts the system into **Standby** mode after a specified time period.

Power Scheme	*Description*
VAIO Ultimate Battery	Provides longer battery life than **VAIO Maximum Battery**.

✍ If you have a mobile CPU (see the specifications), a CPU control icon may appear on the taskbar. The CPU control icon indicates the CPU control status (Performance, Adaptive, Battery Life, Degrade). To make the icon appear, click the **Advanced** button on the **VAIO Power Management** tab. Select the **Show CPU status icon in the taskbar** box and then click **OK**.

✍ If you want to know more about the CPU control icon, read the online help file (**Other Information - Icons on the Notification Area**).

Restoring the default settings

The power scheme settings that you changed on the **VAIO Power Management** tab can be restored to the default settings.

To restore the default settings, proceed as follows:

1. Select the **VAIO Power Management** tab in the **Power Options Properties** window.
2. Click the **Advanced** button.
   The **VAIO Power Management** window appears.
3. Click the **Reset by default** button.
   The **Confirm** window appears.
4. Select the **Restore all power schemes to the original factory default settings**.
5. Click **OK**.
   The **Confirm** window closes and the default settings are restored for all the power scheme options.

VAIO Power Management Viewer

To start VAIO Power Management Viewer, proceed as follows:

Click on the **VAIO Power Management** tab.

Alternatively, you can click **Start**, point to **All Programs** and **VAIO Power Management**, and then click **VAIO Power Management Viewer** to start the viewer.

VAIO Power Management Viewer is provided with two tabs: **Running on batteries** and **Plugged in**. Starting the viewer automatically displays the tab appropriate to the current power scheme of your computer. On each tab, the radar chart shows performance with the current power scheme and the modified power scheme in the designated colours.

To change the power scheme, proceed as follows:

Select the desired power scheme from the drop-down list on VAIO Power Management Viewer.

To view performance with the power scheme modified with VAIO Power Management, proceed as follows:

When both VAIO Power Management and VAIO Power Management Viewer are running, VAIO Power Management Viewer shows performance with the power scheme that was modified with VAIO Power Management.

Use VAIO Power Management to set up or modify the power scheme.

Connecting peripheral devices

You can add functionality to your computer by using the various ports on your unit.

- Connecting an external display
- Selecting display modes
- Using the Multiple Monitors function
- Connecting external speakers
- Connecting a Universal Serial Bus (USB) device
- Connecting an i.LINK device
- Connecting to a network (LAN)

To identify and locate the ports on your computer, please see the printed **Welcome Mat**.

Detailed information about available optional accessories can be found at: http://www.sonystyle.com/.

Connecting an external display

You can connect an external display to your computer via the port replicator or the display/LAN adapter. For example, you can use your computer with a computer display or a projector.

Turn off your computer and the peripherals, unplug the AC adapter and the power cord before connecting the external display.

Connect the power cord after connecting all other cables.

Turn on the peripherals, then turn on your computer.

Connected external displays are used as second screens.

(For Windows systems only) You can also use an external display to set up multiple monitors.

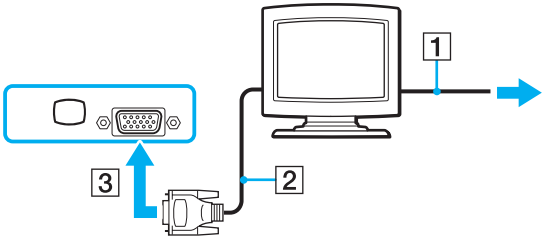
Connecting a computer display

You can connect a computer display (monitor) either via the port replicator or the display/LAN adapter.

To connect a computer display, proceed as follows:

1 If necessary, plug one end of the display's power cord (1) into the display, and the other end into an AC outlet.

2 Plug the display cable (2) (not supplied) into the monitor/VGA connector (3) on the port replicator or the display/LAN adapter.



In certain circumstances, you may not be able to display the computer LCD screen and an external display at the same time.

You can toggle the output between the computer LCD-screen and the external monitor by pressing the LCD/ button on the port replicator or the display/LAN adapter.

Connecting a projector

You can connect a projector (such as the Sony LCD projector) either via the port replicator or the display/LAN adapter.

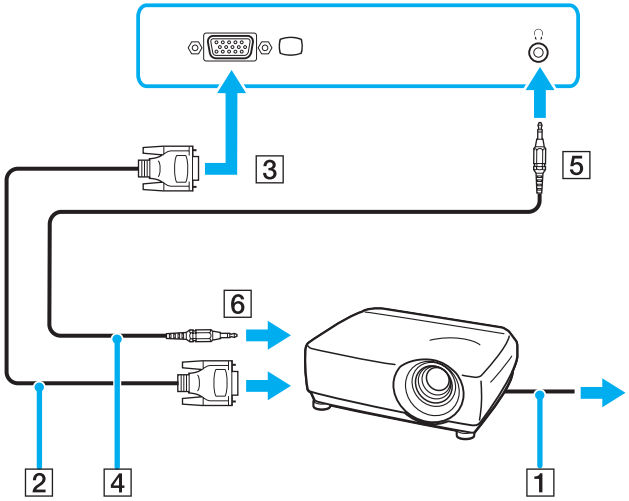
To connect a projector, proceed as follows:

1 Connect the power cord (1) of the projector into an AC outlet.

2 Plug the RGB signal cable (2) into the monitor/VGA connector (3) on the port replicator or the display/LAN adapter.

3 Plug the audio cable (4) (not supplied) into the earphone connector (5) .

4 Plug the RGB signal cable and the audio cable into the connectors on the projector (6).



Under certain circumstances, you may not be able to display the computer LCD screen and a projector at the same time.

You can toggle the output between the computer LCD-screen and the projector by pressing the LCD/ button on the port replicator or the display/LAN adapter.

Troubleshooting external displays

I cannot display contents on two or more displays at the same time

You cannot display contents on multiple external displays at the same time. Select one of the external displays.

Selecting display modes

This model uses the Intel video controller. You can select which display is used when the computer is connected to an external display. When you connect an external display, you can switch the display between your computer's LCD and the external monitor by pressing the LCD/ button on the port replicator or the display/LAN adapter or following the procedure below.

To select a display, proceed as follows:

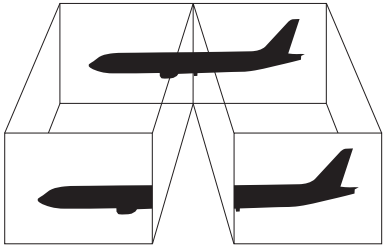
1. Click **Start**, then **Control Panel**.
   The **Control Panel** appears.
2. Click **Appearance and Themes**, and then select **Display**.
   The **Display Properties** dialog box appears.
3. Click the **Settings** tab.
4. Click the **Advanced** button.
   The properties dialog box appears for advanced settings.
5. Click the tab with its name beginning with **Intel(R)**.
6. Click **Graphic Properties**.
7. On the **Device** tab, click to select a display.
8. Click **OK**.

✍ You may not be able to display on the computer LCD screen and an external display or a projector at the same time, depending on the types of computer displays and projectors you are using.

Using the Multiple Monitors function

The Multiple Monitors function allows you to distribute portions of your desktop across separate displays. For example, if you have an external monitor attached to the monitor connector, your LCD display and the monitor can function as a single desktop.

You can move the cursor from one display to the other. This allows you to drag objects, such as an open application window or a toolbar, from one display to the other.



✍
Your monitor hardware may not support the Multiple Monitors function.

✍
Certain software applications may not be compatible with Multiple Monitors settings.

✍
Make sure that your computer does not enter **Standby** or **Hibernate** mode while you are using Multiple Monitors mode, otherwise your computer may not return to **Normal** mode.

✍
If you set different colours on each display, do not divide one single window on two displays, otherwise your software may not work properly.

✍
Set fewer colours or a lower resolution for each display.

Selecting the Multiple Monitors mode

To select the Multiple Monitors mode, proceed as follows:

1. Click **Start**, and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Appearance and Themes** icon.
3. Click the **Display** icon.
   The **Display Properties** window appears.
4. Click the **Settings** tab.
5. Click **Advanced**.

6 Click the **Intel(R) Extreme Graphics 2 for Mobile** tab.

7 Click **Graphics Properties**.
The window with its name beginning with Intel(R) appears.

8 Select **Extended Desktop** on the **Devices** tab.

To change the primary and secondary device settings, select a device from the list for **Primary Device** under **Extended Desktop Settings**.

9 Click **OK**.
If the **Confirm Desktop Change** window appears, click **OK**.
The window in step 6 appears and the display of your choice is activated.

10 Click **OK**.
The **Display Properties** window appears.

11 Click **Cancel** or .

Your monitor hardware may not support the Multiple Monitors function.

Setting the colors and resolution for each display

You can set the display colors and resolution for each display that is part of multiple monitors.

To set the display colors and resolution for each display, proceed as follows:

1 Click **Start**, and then **Control Panel**.
The **Control Panel** window appears.

2 Click the **Appearance and Themes** icon.

3 Click the **Display** icon.
The **Display Properties** window appears.

4 Click the **Settings** tab.

5 Click **Advanced**.

6 Click the **Intel(R) Extreme Graphics 2 for Mobile** tab.

7 Click **Graphics Properties**.
The window with its name beginning with Intel(R) appears.

8 On the **Devices** tab, select **Extended Desktop** and click **Device Settings**.
The **Device Settings** window appears.

9 Select an option from the **Color quality** list to change colors and use the slider in the **Screen resolution** bar to adjust the resolution.

Number of colors

If you set colors in step 5, the actual colour is displayed as follows:

Medium (16 bits): 65,536 colors

Highest (32 bits): Approx. 16,190,000 colors*

* Graphics accelerator dithering is used for your computer's LCD.

10 Click **OK**.
If the **Confirm Desktop Change** window appears, click **OK**.
The window in step 6 appears and the display of your choice is activated.

11 Click **OK**.
The **Display Properties** window appears.

12 Click **Cancel** or .

Customizing the multiple monitors

You can customize the Multiple Monitors mode by changing the position of the two monitors comprising the multiple monitors.

To customize Multiple Monitors mode, proceed as follows:

1. Click **Start**, and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Appearance and Themes** icon.
3. Click the **Display** icon.
   The **Display Properties** window appears.
4. Click the **Settings** tab.
5. Click **Advanced**.
6. Click the **Intel(R) Extreme Graphics 2 for Mobile** tab.
7. Click **Graphics Properties**.
   The window with its name beginning with Intel(R) appears.
8. Select **Extended Desktop** on the **Devices** tab.
9. Drag the display icon 2 to the display icon 1 so that they come in contact with each other.
10. Click **OK**.
    If the **Confirm Desktop Change** window appears, click **OK**.
    The window in step 6 appears and the display of your choice is activated.
11. Click **OK**.
    The **Display Properties** window appears.
12. Click **Cancel** or .

Deactivating the Multiple Monitors function

To deactivate the Multiple Monitors function, proceed as follows:

1. Click **Start**, and then **Control Panel**.
   The **Control Panel** window appears.
2. Click the **Appearance and Themes** icon.
3. Click the **Display** icon.
   The **Display Properties** window appears.
4. Click the **Settings** tab.
5. Click **Advanced**.
6. Click the **Intel(R) Extreme Graphics 2 for Mobile** tab.
7. Click **Graphics Properties**.
   The window with its name beginning with Intel(R) appears.
8. Select **Notebook** on the **Devices** tab.
9. Click **OK**.
   If the **Confirm Desktop Change** window appears, click **OK**.
   The window in step 6 appears and the display of your choice is activated.
10. Click **OK**.
    The **Display Properties** window appears.
11. Click **Cancel** or .

For switching from Primary to Secondary display, see Selecting display modes.

Connecting external speakers

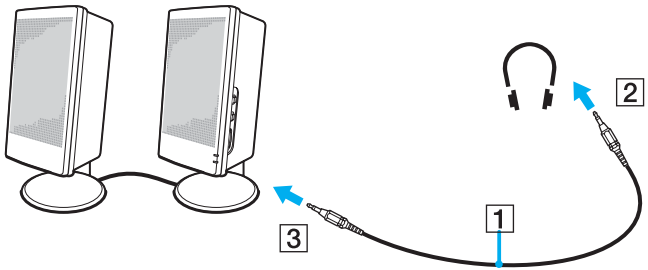
You can enhance the sound quality of your computer by connecting external speakers.

To connect external speakers, proceed as follows:

1 Plug the speaker cable (1) into the headphone connector (2).

2 Plug the other end of the speaker cable into the external speaker (3).

3 Turn down the volume of the speakers before you turn them on.



Make sure your speakers are designed for computer use.

Do not place floppy disks on the speakers; their magnetic field may damage the data on the disks.

Troubleshooting sound

My speakers are not producing sound

- If you use external speakers, check that the speakers are properly connected and the volume is turned up. If the speakers have a mute button, make sure it is off. If batteries power the speakers, check that the batteries are inserted properly and that they are charged.
- If you have connected an audio cable to the headphone connector, disconnect the cable.

Connecting a Universal Serial Bus (USB) device

You can connect a USB device (for example, a mouse, floppy disk drive, keyboard, printer) to your computer.

USB devices are plug-and-play devices. You do not need to shut down your computer prior to connecting these devices unless the manual supplied with the device states otherwise.

For some USB devices you need to install the software before you connect the device. Not following this procedure might cause the device not to work properly. For more information, check the manual provided with the USB device.

When you are playing a DVD (video or audio) and you want to remove a USB device, such as USB-compatible speakers, make sure you stop the DVD first. Removing a USB-compatible device during DVD (video or audio) playback may cause a malfunction.

To prevent your computer and/or USB devices from damage, observe the following:

- When moving your computer with USB devices connected, avoid any shock or force to the USB connectors.
- Do not put your computer into a bag or carrying case when it has USB devices connected.

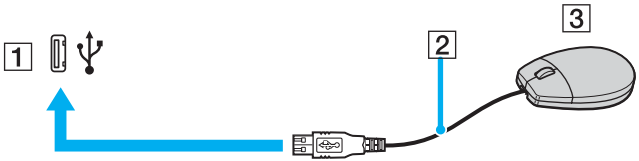
- Connecting a USB mouse
- Connecting a USB floppy disk drive
- Connecting a printer using the USB connector

Connecting a USB mouse

To connect an optional USB mouse, proceed as follows:

1 Choose the USB connector (1) you prefer to use.

2 Plug the USB mouse cable (2) into the USB connector. You can use your USB mouse (3).



The VAIO USB mouse software driver is preinstalled on your computer; therefore, you only need to plug the USB mouse into the USB connector and you can start working.

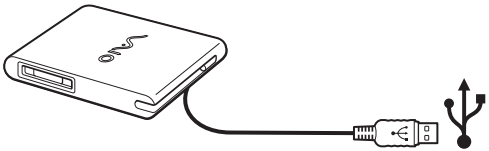
Connecting a USB floppy disk drive

As an optional extra, you can purchase a USB floppy disk drive and connect it to your computer.

The optional USB floppy disk drive may not be available for sale in every country or region.

To connect a USB floppy disk drive, proceed as follows:

1. Choose the USB connector you prefer to use.
2. Plug the USB floppy disk drive cable into the USB connector. The VAIO logo on the disk drive should be facing up. Your USB floppy disk drive is now ready for use.



When using a USB floppy disk drive, do not apply force on the USB connector. This may cause a malfunction.

To remove a USB floppy disk drive, proceed as follows:

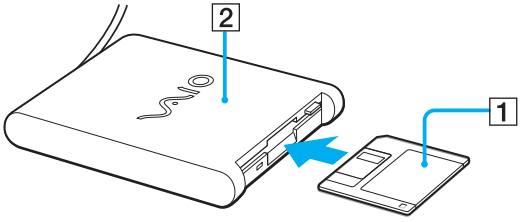
- If your computer is on, wait until the floppy drive LED indicator turns off and then unplug the USB cable. If the floppy disk drive is not removed properly, your system may crash and you may lose any unsaved data.
- If your computer is off, you can unplug the USB cable directly from the computer.

Inserting a floppy disk

To insert a floppy disk, proceed as follows:

1 Hold the disk (1) with the label side facing up.

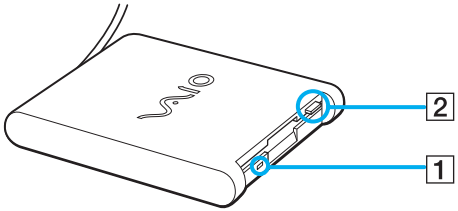
2 Gently push the disk into the drive (2) until it clicks into place.



Removing a floppy disk

To remove a floppy disk, proceed as follows:

When you have finished using the floppy disk, wait until the LED indicator (1) turns off and then press the eject button (2) to remove the disk.



Before pressing the eject button, make sure that the LED indicator is turned off.

If the disk does not come out by pressing the eject button, disconnect the floppy disk drive from the computer.

Do not press the eject button while the LED indicator is on. It may damage the floppy disk.

Connecting a printer using the USB connector

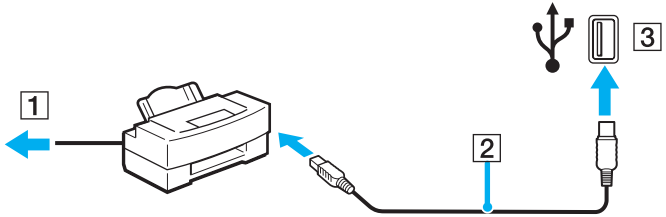
You can purchase and connect a USB printer compatible with your version of Windows to your computer.

To connect a printer using the USB connector, proceed as follows:

1 Plug the printer power cord into an AC outlet (1).

2 Plug a USB printer cable (2) into one of the USB connectors (3) on your computer.

A USB connector is identified by the symbol on your computer and printer.



Troubleshooting floppy disks

My USB floppy disk drive cannot write to a floppy disk

- The floppy disk is write-protected. Disable the write-protect feature or use a floppy disk that is not write-protected.
- Check that the disk is properly inserted into the floppy disk drive.
- Your disk may be corrupt. Try to insert another floppy disk.

The optional USB floppy disk drive is not recognized as drive A

To set the floppy disk drive to A, proceed as follows:

1. Turn the system power on.
2. Connect the floppy disk drive.
3. Select **Control Panel** from the **Start** menu.
4. Click **Performance and Maintenance**.
5. Click **System**.
6. Select the **Hardware** tab, then click **Device Manager**.
7. Select **Universal Serial Bus controllers**, then **Y-E Data USB Floppy**.
8. From the Action menu, click **Uninstall**.
9. Keep clicking **OK** until the **Confirmation of deletion of device** message appears.
10. Select **Scan for hardware changes** from the **Action** menu.
    The floppy disk drive is recognized as drive A.

Connecting an i.LINK device

Your computer includes an i.LINK (IEEE1394) connector, which you can use to connect to an i.LINK device such as a digital video camera recorder or to connect two VAIO notebooks in order to copy, delete or edit files.

The i.LINK connector of your computer does not supply power to external devices generally powered by i.LINK connectors.

The i.LINK connector supports transfer rates up to 400 Mbps; however, the actual transfer rate depends on the transfer rate of the external device.

The i.LINK features available may vary depending on the software applications you use. Refer to the documentation that came with your software for more information.

i.LINK cables compatible with your VAIO computer include cables with the following part numbers:

VMC-IL4415 (a 1.5 meter cable with a 4-pin connector at each end), VMC-IL4408 Series (a 0.8 meter cable with a 4-pin connector at each end).

The optional i.LINK cables may not be on sale in every country or region.

❑ **Connecting two VAIO personal computers**

An i.LINK connection with other compatible devices is not fully guaranteed.

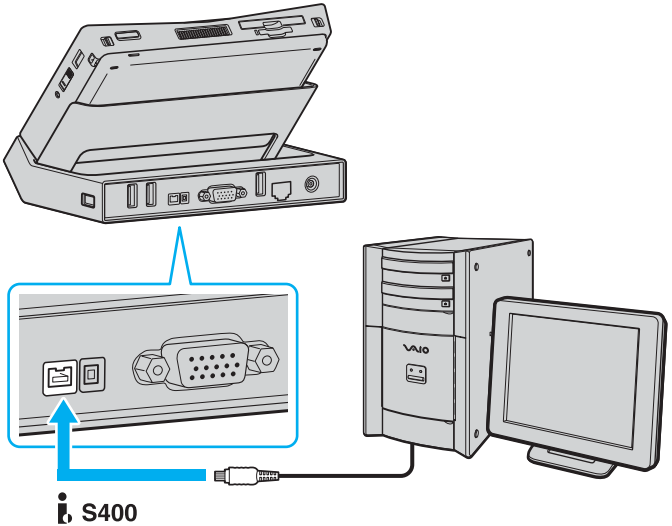
The i.LINK connection varies depending on the software applications, operating system and i.LINK compatible devices you use. Refer to the documentation that came with your software for more information.

Check the working conditions and OS compatibility of i.LINK-compatible PC peripherals (HDD, CD-RW drive, etc.) before you connect them to your computer.

Connecting two VAIO personal computers

You can copy, edit, or delete files on another VAIO computer to your computer with an optional i.LINK cable.

You can also print a document on a printer connected to another VAIO computer.



Troubleshooting i.LINK devices

I cannot establish an i.LINK connection between two VAIO computers

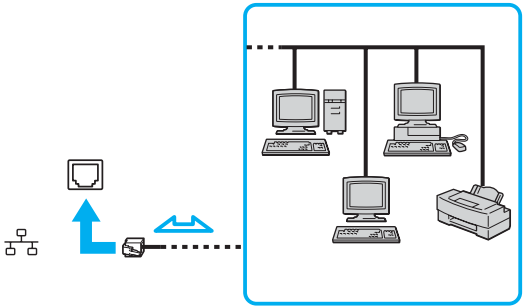
- You must have administrator rights on your computer to be able to link the two.
- Disconnect then reconnect the i.LINK cable.
- If you still have no connection after waiting for a while, restart both computers.
- If either computer has just returned from a power saving mode, the connection may be affected. In this case, make sure you perform a full restart before connecting them.

I cannot use digital devices

- Check that the DV device is turned on and that the cables are properly connected.
- If you are using multiple i.LINK devices, the combination of the connected devices may cause unstable operation. If this is the case, turn off all connected devices and disconnect unused devices. Check the connection and then turn on the power again.
- You are strongly advised to use only Sony i.LINK cables, as using other brands may cause problems with the i.LINK devices.

Connecting to a network (LAN)

You can connect your computer to 10BASE-T/100BASE-TX networks via the port replicator or the display/LAN connector using an Ethernet network cable. For the detailed settings and devices needed to connect to the network, consult your Network Administrator.



! Telephone lines cannot be connected to the network (LAN) connector on the port replicator or the display/LAN adapter. If the network (LAN) connector is connected to the telephone lines mentioned below, high electric current to the connector may cause damage, overheating or fire.

! - Home (intercom speakerphone) or business-use telephone lines (multi-line business telephone);

! - Public telephone subscriber line;

! - PBX (private branch exchange);

Upgrading your VAIO computer

Your computer and memory modules use high precision components and electronic connectors technology. To avoid the invalidation of your guarantee by mishandling, it is recommended that you contact your dealer if you want to install a new memory module.

- Please contact VAIO customer support at http://www.sony.com/pcsupport if you need assistance.

Getting help

This section describes how to get help and support if something goes wrong with your computer.

Sony offers you many support options for your computer.

Sony support options

Please see Documentation pack for details on the printed and online documentation delivered with your computer, as well as further sources of reference.

Other sources of information

- Go to the online **help files** that accompany your software for instructions on using the software.
- **VAIO online support**: if you have any problem with your computer, you can access the VAIO online support for troubleshooting. Go to: http://www.sony.com/pcsupport
- **VAIO customer support help lines**: Before contacting VAIO customer support by telephone, try to solve the problem by reading the online and printed documentation.

✍ You need to set up an Internet connection before you can access the online features described here.

Program Support Information

Depending on the computer model and particular configuration you purchased, your computer may not include all of the software programs listed below.

Adobe® Photoshop® Elements, Photoshop® Album, Premiere®, Reader®

Adobe Systems Inc.

Web site	http://www.adobe.com
Telephone	800-685-3652

America Online® (Broadband or Dial-Up)

AOL, Inc.

Web site	http://www.aol.com

AOL® Instant Messenger™

AOL, Inc.

Web site	http://www.aim.com

Click to DVD™

Sony Electronics Inc.

At the touch of a button, Click to DVD software allows you to automatically burn DVDs from a digital video (DV) device. Create DVDs by capturing video content straight from a DV device or by importing video from stored files — and you can also edit the video. Create DVD photo albums and slide shows with picture files or by importing pictures from a digital still camera. What's more, you can easily give a professional look to your DVDs by adding chapter menus, backgrounds, and menu screens. You are only a few clicks away from your own DVDs!

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

CLIÉ Converter

Sony Electronics Inc.

CLIÉ Converter software is a plug-in program that converts Giga Pocket® Video Capsules into Movie Player format for playback on your Sony® CLIÉ® handheld. After converting your Video Capsules, you can use CLIÉ Converter software to transfer them to Memory Stick® media or to save them to your hard disk drive for transfer to your CLIÉ handheld during your next HotSync® operation.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

DVgate Plus™

Sony Electronics Inc.

Connect a compatible digital video camera to your computer's i.LINK® port and capture video clips and still images. Edit clips from your video, add new clips, and combine clips into new movie segments. Save your movies back to your digital video camera or in a variety of popular file formats.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Giga Pocket® Personal Video Recorder

Sony Electronics Inc.

Giga Pocket® Personal Video Recorder is a unique set of hardware and software components that provide you with excellent TV viewing, recording, and playback experiences. You can watch and record your favorite TV programs from your computer, create custom playlists, and play your Video Capsules on other compatible computers. Giga Pocket® Personal Video Recorder enables your computer, TV, VCR, and other video player devices to work in harmony.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Google Toolbar™

Google, Inc.

Web site	http://toolbar.google.com/help.html

ImageStation®

Sony Electronics, Inc.

With ImageStation® online service, you can store, organize, and share your photos and video clips online. ImageStation online service membership is free (except for transactions) and includes unlimited storage of digital photos, storage for 15 minutes of video clips, tools to personalize the design and arrangement of your pictures in albums, and access to stories and tips about image handling in ImageStation Magazine.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Microsoft® Office Basic Edition, Office Professional Edition, Office Small Business Edition, Office Small Business Edition Trial Version, Office Student and Teacher Edition Trial Version

Microsoft Corp.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Microsoft® Internet Explorer, Movie Maker, Media® Player, Works

Microsoft Corp.

Web site	http://www.support.microsoft.com

MoodLogic

MoodLogic, Inc.

Web site	http://www.moodlogic.com/support

Netscape® Internet Service

AOL Inc.

Web site	http://isp.netscape.com/help/
Telephone	866-541-8233

Norton Internet Security™

Symantec Corporation

Web site	http://www.symantec.com/techsupp

PenPlus for VAIO

Sony Electronics Inc.

Web site	http://www.sony.com/pcsupport

PictureGear Studio™

Sony Electronics Inc.

PictureGear Studio still image management software displays still images from your hard drive or a Sony digital still camera. The still images appear in a convenient light-table format so that you can easily view the contents of an entire folder, create your own photo albums, and make prints.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Quicken® New User Edition

Intuit Inc.

Web site	http://www.intuit.com/support
Telephone	800-644-3193

RecordNow

Sonic Solutions

Web site	http://support.sonic.com

ritePen®

EverNote Corp.

Web site	http://www.evernote.com/en/support

SonicStage®

Sony Electronics Inc.

The SonicStage jukebox software program gives you all the tools you need to manage music on your computer. SonicStage software sports high-quality digital audio storage, a sleek player skin design, and audio CD burning capability.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

SonicStage™ Mastering Studio

Sony Electronics Inc.

Use SonicStage™ Mastering Studio software to record songs from analog records or cassette tapes into your computer and output them to CD-R or CD-RW discs or audio files in WAV format.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

Sony® VAIO® Product Registration

Sony Electronics Inc.

VAIO Product Registration is an integrated registration program for both Sony Electronics and Microsoft Corporation. By registering with Sony, you enable Sony to notify you of software and hardware issues that may affect your user experience. Microsoft directs the data to Sony Electronics. Sony uses the registration data for warranty and product support purposes and the analysis of customer feedback on Sony computer features.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

TurboTax® for the Web

Intuit, Inc.

Web site	http://www.intuit.com/support

VAIO Action Setup

Sony Electronics Inc.

VAIO Action Setup manages the settings for your computer's shortcut keys.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

VAIO Edit Components

Sony Electronics Inc.

VAIO Edit Components is a software plug-in for Adobe® Premiere® software that provides maximum compatibility and video quality for capturing video from your Sony digital camcorder.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

VAIO Media™

Sony Electronics Inc.

VAIO Media™ software brings multimedia to your network, enabling you to share music, video, and still image files between your VAIO® computers. You can set up one or more computers as “media servers,” which store your multimedia files and make them available to other compatible VAIO computers on your wired or wireless network.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

VAIO Software Keyboard

Sony Electronics Inc.

Web site	http://www.sony.com/pcsupport

VAIO Update

Sony Electronics Inc.

The VAIO Update utility helps you keep your VAIO® computer up to date by regularly checking the Sony Online Support Web site for important software updates and information for your specific VAIO computer model.

Web site	http://www.sony.com/pcsupport
Telephone	888-4-SONY-PC (888-476-6972)

WinDVD® for VAIO®

InterVideo, Inc.

Web site	http://www.intervideo.com/jsp/Support.jsp
Telephone	510-651-0888

Precautions

This section describes safety guidelines and precautions to help you protect your computer from potential damage.

Please contact VAIO customer support if you need assistance.

- On handling the hard disk
- On handling the LCD screen
- On using the power source
- On handling your computer
- On using the supplied strap
- On storing the computer and keyboard in the protective pouches
- On using the supplied protective pouches
- On handling floppy disks
- On handling discs
- On using the battery pack
- On using headphones
- On handling Memory Stick media

On handling the hard disk

The hard disk has a high storage density and reads or writes data in a short time. However, it can be easily damaged by mechanical vibration, shock or dust.

Although the hard disk has the internal safety device to prevent losing data due to mechanical vibration, shock or dust, you should be careful when handling your computer.

To avoid damaging your hard disk:

- Do not subject your computer to sudden movements.
- Keep the computer away from magnets.
- Do not place your computer in a location subject to mechanical vibration or in an unstable position.
- Do not move your computer while the power is on.
- Do not turn off the power or restart the computer while reading or writing data to disk.
- Do not use your computer in a place subject to extreme changes in temperature.

If the hard disk is damaged, the data cannot be restored.

On handling the LCD screen

- Do not leave the LCD facing the sun as it can damage the LCD. Be careful when using the computer near a window.
- Do not scratch the LCD or exert pressure on it. This could cause a malfunction.
- Using the computer in low temperature conditions may produce a residual image on the screen. This is not a malfunction. When the computer returns to normal temperature, the screen returns to normal.
- A residual image may appear on the screen if the same image is displayed for a lengthy period of time. The residual image disappears in a while. You can use a screensaver to prevent residual images.
- The screen becomes warm during operation. This is normal and does not indicate a malfunction.
- The LCD is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD. This is a normal result of the manufacturing process and does not indicate a malfunction.
- Avoid rubbing the LCD screen, as this can damage the screen. Use a soft, dry cloth to wipe the LCD screen.

On using the power source

- See the specifications to check the power requirements for your VAIO.
- Do not share the AC outlet with other power-consuming equipment, such as a photocopier or shredder.
- You can purchase a power strip with a surge protector. This device prevents damage to your computer caused by sudden power surges, in an electrical storm, for example.
- Do not place heavy objects on the power cord.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- Unplug your computer from the wall outlet if you are planning to not use the computer for a long time.
- Make sure that the socket outlet is easily accessible.
- When the AC adapter is not used, unplug it from the AC outlet.
- Use the AC adapter that comes with your computer or genuine Sony products. Do not use any other AC adapter as it may cause a malfunction.

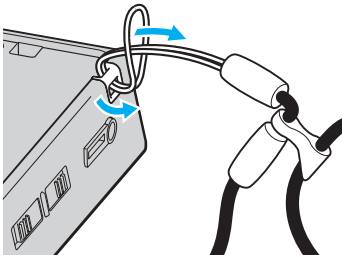
On handling your computer

- Clean the cabinet with a soft cloth, which is either dry or lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder, or solvent such as alcohol or benzine, as these may damage the finish of your computer.
- Should you drop a solid object or any liquid onto the computer, shut down your computer and then unplug it. You may want to have the computer checked by qualified personnel before operating it again.
- Do not drop the computer or place heavy objects on top of the computer.
- Do not place your computer in a location subject to:
  - Heat sources, such as radiators or air ducts,
  - Direct sunlight,
  - Excessive dust,
  - Moisture or rain,
  - Mechanical vibration or shock,
  - Strong magnets or speakers that are not magnetically shielded,
  - Ambient temperature of more than 95°F (35°C) or less than 41°F (5°C),
  - High humidity.
- Do not place electronic equipment near your computer. The electromagnetic field of your computer may cause a malfunction.
- Provide adequate air circulation to prevent internal heat from building up. Do not place your computer on porous surfaces such as rugs or blankets, or near material such as curtains or draperies that may block its ventilation slots.
- The computer uses high-frequency radio signals and may cause interference to radio or TV reception. Should this occur, relocate the computer a suitable distance away from the set.
- Use only specified peripheral equipment and interface cables; otherwise, problems may occur.
- Do not use cut or damaged connection cables.

- If the computer is brought directly from a cold location to a warm one, moisture may condense inside your computer. In this case, allow at least one hour before turning on your computer. If any problems occur, unplug your computer and contact VAIO customer support.
- Make sure you disconnect the power cord before cleaning the computer.
- As you may lose important data once your computer is damaged, you should back up your data regularly.

On using the supplied strap

- Before using your computer in the palm of your hand, make sure to attach the supplied strap to your computer and put it on around the wrist of your other hand to prevent the computer from dropping off.
- Do not put the supplied strap around your neck.
- Do not carry around your computer by holding the attached strap to prevent malfunctions that may be caused by shock hazards.

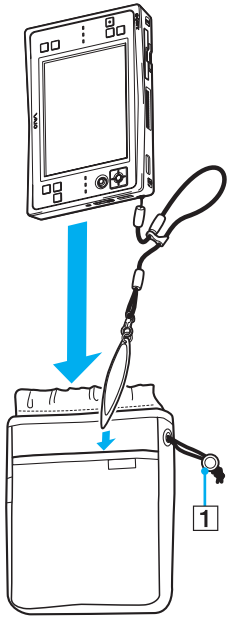


On storing the computer and keyboard in the protective pouches

Storing the computer

To prevent damage to the computer's LCD, make sure to store your computer in the supplied protective pouch before carrying it around.

Put your computer into the protective pouch and fasten the pouch firmly with the strings and the stopper (1). To protect the LCD from any damage, put the stylus and the strap into the outside pocket on the pouch.



! To prevent damage to the LCD, do not put your computer into the protective pouch meant for the keyboard.

! Make sure to turn off your computer or put it into a power-saving mode before storing the computer in the protective pouch.

! Make sure to turn on the HOLD switch to prevent any malfunctions.

! Make sure to remove any Memory Stick media or Compact Flash Card before storing your computer in the protective pouch.

Storing the supplied folding keyboard

The inside of the protective pouch for the keyboard is divided into two sections. Make sure to put the keyboard and the USB cord into separate sections to prevent any damage to the keyboard surface and fasten the pouch firmly.

On using the supplied protective pouches

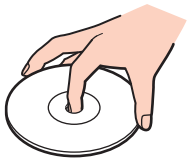
- The supplied protective pouches are designed to protect the computer and keyboard from superficial damages, including scratches, but are not shock-absorbing. Any shock to the computer or keyboard in the pouch may cause a malfunction.
- The protective pouches are not waterproof.
- Do not let the protective pouches get wet, as it may cause discoloration. If they accidentally get wet, immediately dry them.
- Do not use any type of solvent, such as alcohol or benzine, on the protective pouches.

On handling floppy disks

- Do not open the shutter manually or touch the surface of the floppy disk.
- Keep floppy disks away from magnets.
- Keep floppy disks away from direct sunlight and other sources of heat.
- Keep the floppy disk away from any liquid. Do not let the floppy disk get wet. When you are not using the floppy disk, always remove it from the floppy disk drive and use a storage case.
- If the floppy disk comes with a label, make sure that the label is properly attached. If the edge of the label is curled up, the label may stick to the inside of the floppy disk drive and cause a malfunction or damage your floppy disk.

On handling discs

- Do not touch the surface of the disc.
- Do not drop or bend the disc.
- Fingerprints and dust on the surface of a disc may cause read errors. Always hold the disc by its edges and central hole, as shown:



- Proper care of the disc is essential to its continuous reliability. Do not use solvents such as benzine, thinning agents, commercially available cleaners or anti-static spray, as they may cause damage to the disc.
- For normal cleaning, hold the disc by its edge and use a soft cloth to wipe the surface from the centre out.
- If the disc is badly soiled, moisten a soft cloth with water, wring it out well, and use it to wipe the surface of the disc from the centre out. Wipe off any remaining moisture with a dry soft cloth.

- Never put stickers on discs. This will affect the use of the disc irreparably.

On using the battery pack

- Never leave the battery pack in temperatures above 140°F (60°C), such as in a car parked in the sun or under direct sunlight.
- Battery life is shorter in a cold environment. This is due to decreased battery efficiency at low temperatures.
- Charge the batteries at temperatures between 10°C to 30°C (18°F to 86°F). Lower temperatures require a longer charging time.
- For your safety, it is highly recommended that you use genuine Sony rechargeable battery packs and AC adapters that meet the quality assurance standard, supplied by Sony for your VAIO notebook. Some VAIO notebooks may only function with a genuine Sony battery.
- While the battery is in use or being discharged, the battery pack heats up. This is normal and is not cause for concern.
- Keep the battery pack away from all sources of heat.
- Keep the battery pack dry.
- Do not open or try to disassemble the battery pack.
- Do not expose the battery pack to any mechanical shock.
- If you are not using the computer for an extended period of time, remove the battery pack from the computer to prevent damage to the battery.
- If, after fully charging the battery pack, the battery power is still low, the battery pack may be reaching the end of its life and should be replaced.
- You do not need to discharge the battery before recharging.
- If you have not used the battery pack for a considerable amount of time, recharge the battery.

On using headphones

- **Road safety** – Do not use headphones while driving, cycling, or operating any motorized vehicle. It may create a traffic hazard and is illegal in some areas. It can also be potentially dangerous to play loud music while walking, especially at pedestrian crossings.
- **Preventing hearing damage** – Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.

On handling Memory Stick media

- Do not touch the Memory Stick connector with your finger or metallic objects.
- Use only the label supplied with the Memory Stick as a label.
- Do not bend, drop, or apply strong shock to the Memory Stick.
- Do not disassemble or modify Memory Sticks.
- Do not let Memory Sticks get wet.
- Do not use or store Memory Sticks in a location subject to:
  - Extremely high temperatures, such as in a car parked in the sun,
  - Direct sunlight,
  - High humidity or,
  - Corrosive substances.
- Use the storage case supplied with the Memory Stick.

Trademarks

VAIO is a trademark of Sony Corporation.

"MagicGate Memory Stick," "Memory Stick," MEMORY STICK, and , MEMORY STICK PRO, MEMORY STICK DUO,"MagicGate" and MAGICGATE, OpenMG and OpenMG are trademarks of Sony Corporation.

i.LINK is a designation referring to IEEE 1394-1995 and IEEE 1394a-2000. i.LINK and the i.LINK logo "" are trademarks of Sony Corporation.

Intel, Pentium, and Intel SpeedStep are trademarks or registered trademarks of Intel Corporation.

Microsoft, MS-DOS, Windows, Windows Media, and Outlook are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

All other names of systems, products and services are trademarks of their respective owners. In the manual, the ™ or ® marks are not specified.

Specifications are subject to change without notice. All other trademarks are trademarks of their respective owners.

Please see the Specifications sheet to see what software is available for your model.